

# Panacea-BOCAF On-Line University

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## Over View



Lidmotor's -Bedini Fan fused with the Imhotep radiant oscillator

**PLEASE NOTE – You are working with high voltage here, do not attempt this with out a qualified electrician present, always use insulated probes pliers, screwdrivers etc when working on HV. Do not experiment with this unless you're a qualified electrician.**

*Quote-All you guys, who want to light your homes on a SMALL FRACTION of the electricity that you currently use, keep an eye on this thread. Tesla's HV impulse lighting methods are about to make a COMEBACK!!! **The implications for solar homes or other "off-grid" living are enormous.** Imhotep is the next "future legend" in this field of research!! His circuits are simple and effective. His adaptations are original, and they WORK – Peter Lindemann End Quote.*

Imhotep and his Wife Shiva's have open source their circuits into the public domain. Their goals are to make safe and bug free circuits that work with a universal parts list so no one has any difficulty getting the parts needed. **This circuit has proven to be the most efficient lighting circuit of CFL tubes in the world.** One engineer has calculated 93 % efficiency during an evaluation and verification process.

Note- Normal CFL's are currently being pushed by foreign governments who have begun forced phase-outs of incandescent light bulbs and a change over to CFL's. However consumers are being kept in the dark about the many downsides of compact fluorescent lamps. This replacement is being billed as an environmental and energy-savings panacea. **But safe disposal plans and recycling centers for the mercury-laden compact fluorescent lamps, seen as the future, lag behind the hype.**



Compact fluorescent tube light

*When a CFL breaks, the EPA cautions consumers to open a window and leave the room immediately for at least 15 minutes because of the mercury threat. The agency suggests removing all materials by scooping fragments and powder using cardboard or*

*stiff paper. Sticky tape is suggested as a way to get smaller particles. The EPA says vacuum cleaners and bare hands should never be used in such cleanups.* [Source](#)

**By using this circuit, it is possible to use dead CFL's! Also you do not need the mercury in CFL's to operate this circuit. This system does not need it to operate. There are two positive points we have here with this system:**

**Short term - our tubes should not need to be disposed off. As a matter of fact, An engineer Aromas is now using all the 'dead' tubes CFL's fluorescent from his factory - some of which were already in the waste bin - back in my lab - and they work fine. Failure on CFL's and FI tubes is usually not as a result of the gas. This is mostly the fault of the element or electronics - which we don't need. B: That is one of the reasons further research and tests should be conducted with Sodium (SOX) and Nitrogen/Sodium/Fluor lights. No need for Mercury anymore.**

Given the efficiency reports, this technology is an invaluable power management process which the mainstream faculties must benefit from.

**As an emission cutting device and power savings device alone, this technology justifies (and needs) law for its mandatory implementation into [ECO housing](#). PLEASE HELP AND SIGN PETITIONS ON THE ECO HOUSING LINK TO MAKE THIS TECHNOLOGY MANDATORY INTO THE BUILDING CODE.**

Imhotep, Dr Peter Lindermann and the open source engineers working with this technology all work on a shoe string budget with no endorsement, resources support or security. **The Non profit organization** Panacea-BOCAF intends to support open source engineers working with this and other suppressed clean energy technologies. These engineers require grants, resources, faculty recognition and security. All this can be created in [Panacea's proposed granted research and development center](#). For those able to help this effort, please [Contact us](#).

The circuit presents it self (as much more can and will be done with it) as Lighting light bulbs with Radiant energy. Energy efficient lighting and this R and D is critically needed, just recently it was shown that normal compact florescent lights waste significant energy!

[Wall mart sells 1000's of compact florescent lights](#)

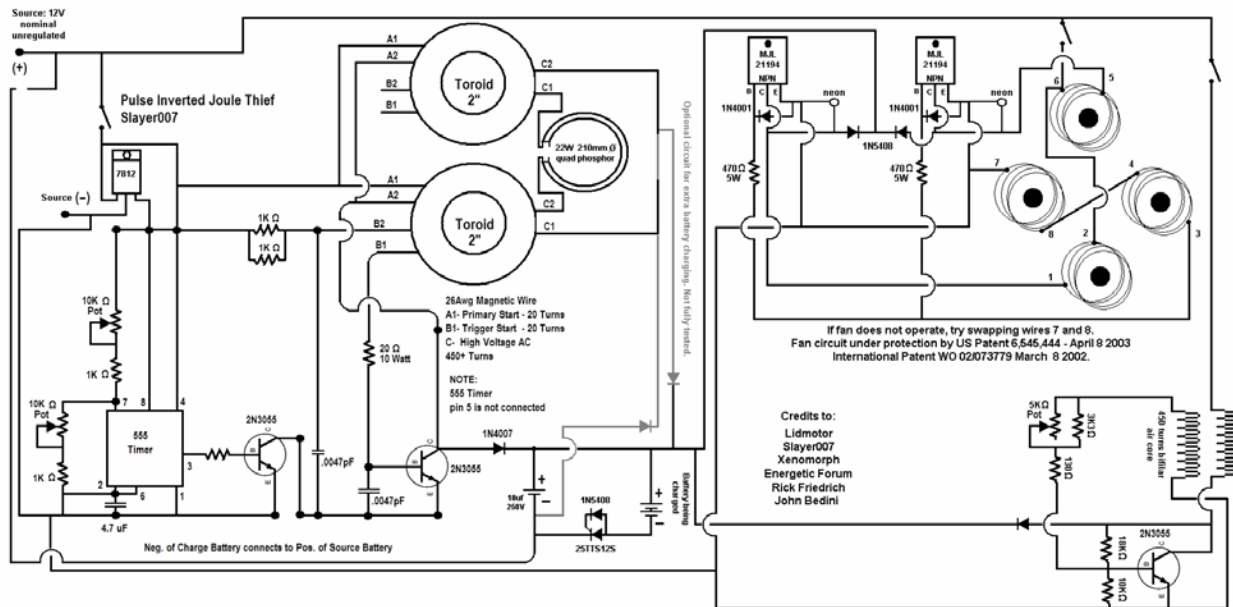
[Should there be a Ban on Incandescent Lamps?](#)

**The Imhotep circuit is not only an efficient lighting circuit; it is also a great educational circuit for radiant energy capture. This circuit is unique at lighting AND recovering the "unused" energy of the inductive collapse. Open source engineers on the [energetic forum](#) like Lidmotor, Ren, Nat , Aromaz and Bodkins have begun taking this circuit to another level by incorporating extra recovery features present in the [Bedini technology](#)**

. Experimentation has now moved towards pulsed inverted circuits, Joule thief's and now to Lidmotor's Halo Light. Plus experimentation is leaning towards extra energy from grounded earth rods and wireless power transmission Tesla style.

More recovery ideas and circuit variations will be added to this document as they become available. Imhotep discusses his technology both on [his web site](#) and the [energetic forums](#). Recently engineers at the energetic forum have come up with the Joule thief circuit; this does away with the ignition coil, is completely solid state and is another way to capture the radiant energy and efficiently light a light. Panacea has replicated this device and made a [AIO Bedini Light Fan & Charger](#). This Joule thief circuit is listed below.

### Joule Thief



[Joule Thief -Light/ Bedini Fan and charger AIO](#)

### Description



Imhotep's light bulb and Fan powered by Radiant energy

Quote- *We do not do our work, for profit, fame or fortune, but to someday make it so no person has to go without the basic form of light and transportation. History has forgotten allot of great minds, that we hope to spurn an interest back in again.* - Shiva  
End quote

The circuit concepts are inspired by [Dr Peter Lindemann](#), [EVGRAY](#) and [Nikola Tesla](#).  
Imhotep & Shiva are a husband and wife team, both who are dedicated to advancing education through open source disclosure.



Altruistic Husband and Wife team ☺

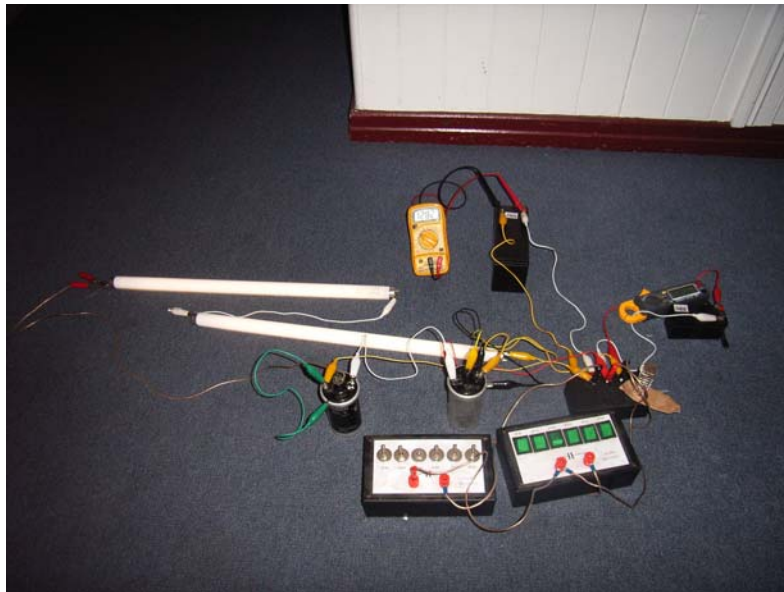
**This circuit is presently reported as the MOST efficient way to charge a battery and light up a light bulb at once! Its potential is immense in solar off the grid households. This illustrates the point of Tesla's HV lighting systems. The "light bulb" is running on**

longitudinal shock waves, and does NOT represent a "load" to the circuit, in the classical sense. This is WHY the energy of the inductive collapse IS available for recovery because it was NOT consumed by lighting the bulb.

## Replication

*This is all a journey, a learning process for everyone. Do not worry if you cannot get the SAME exact parts, but don't expect the same exact results. Like i said it could even work better. Let us know how your search goes in the meantime I will have Shiva look into what's available in the UK. She does have contacts there, but it takes a few days to get information back and forth. Good luck. Imhotep*

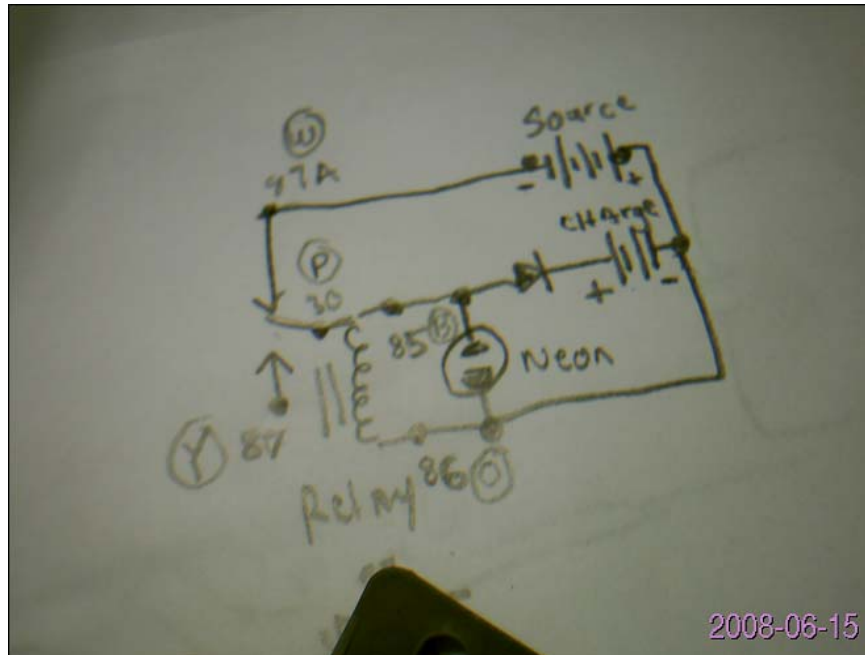
The circuit started off with a relay included, and is still being used; however Imhotep is currently working on an exclusion of the relay and a newer solid state version.



Panacea's replication – This is showing a 1.3 ampere hour battery (right)

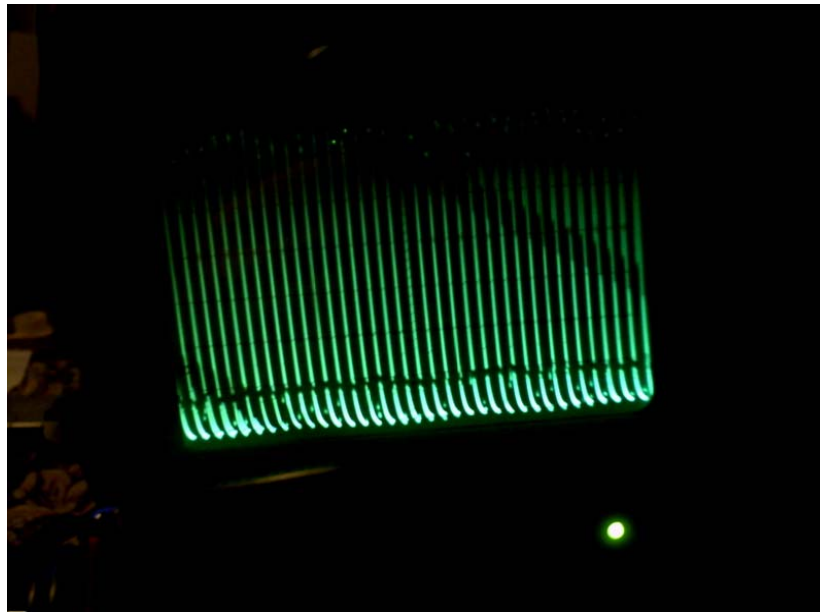
lighting up two fluoro's and charging a 7 ampere hour battery (left).

Imhotep has since made the following circuit to help those with little or no electronic knowledge understand about radiant energy, back EMF, coil collapse.



[Source](#)

Here is a picture by Imhotep showing the Radiant spikes coming off the oscillator. Spikes occur every 2.5 ms in excess of 300 to 400 volts. An automotive relay can be wired as a buzzer and it produces 400 volt spikes suitable for radiant energy charging of a battery, and/or lighting a fluorescent tube at low current draw. This shows how to do this, using just three components: 1 relay, one diode and one neon.

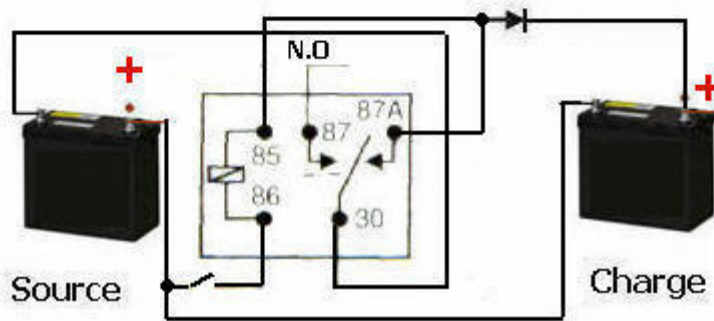
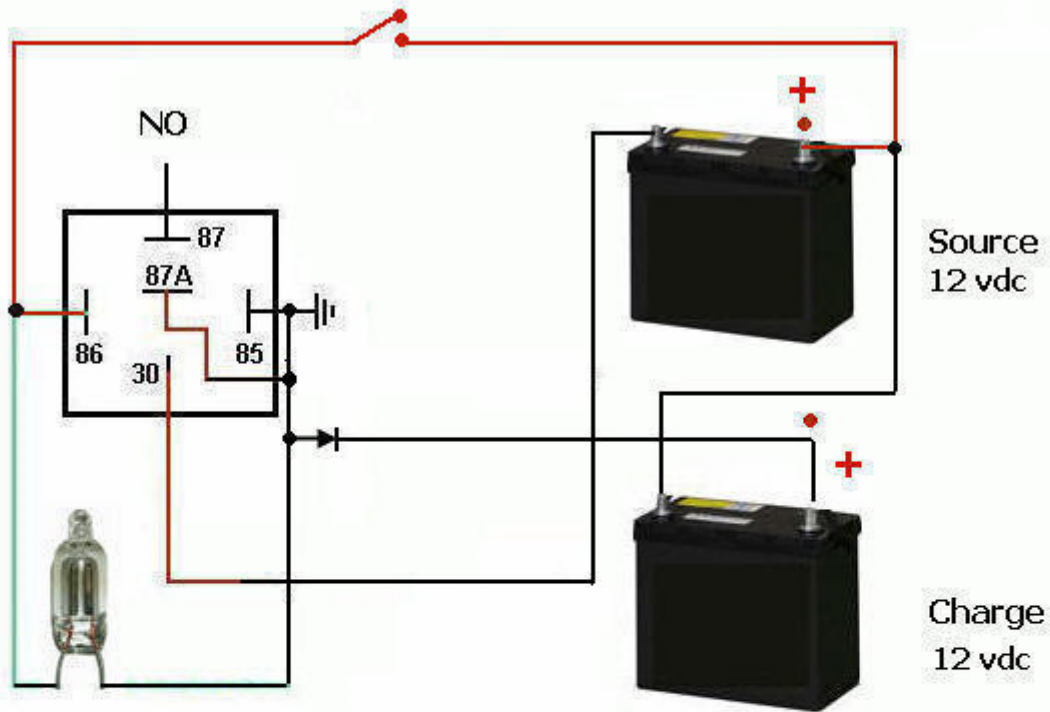


[Source](#)

You Tube - [Free Energy How-to Single Relay Radiant Charger](#)



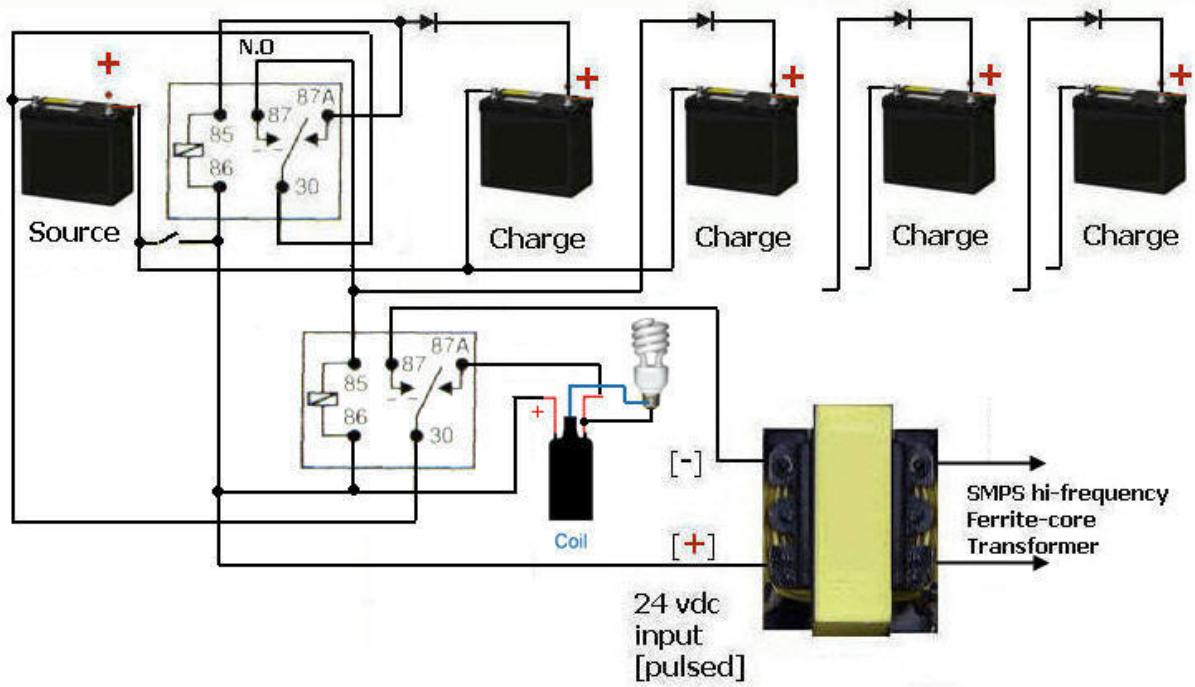
Imhotep Relay Charger Schematic Diagram by Agongon



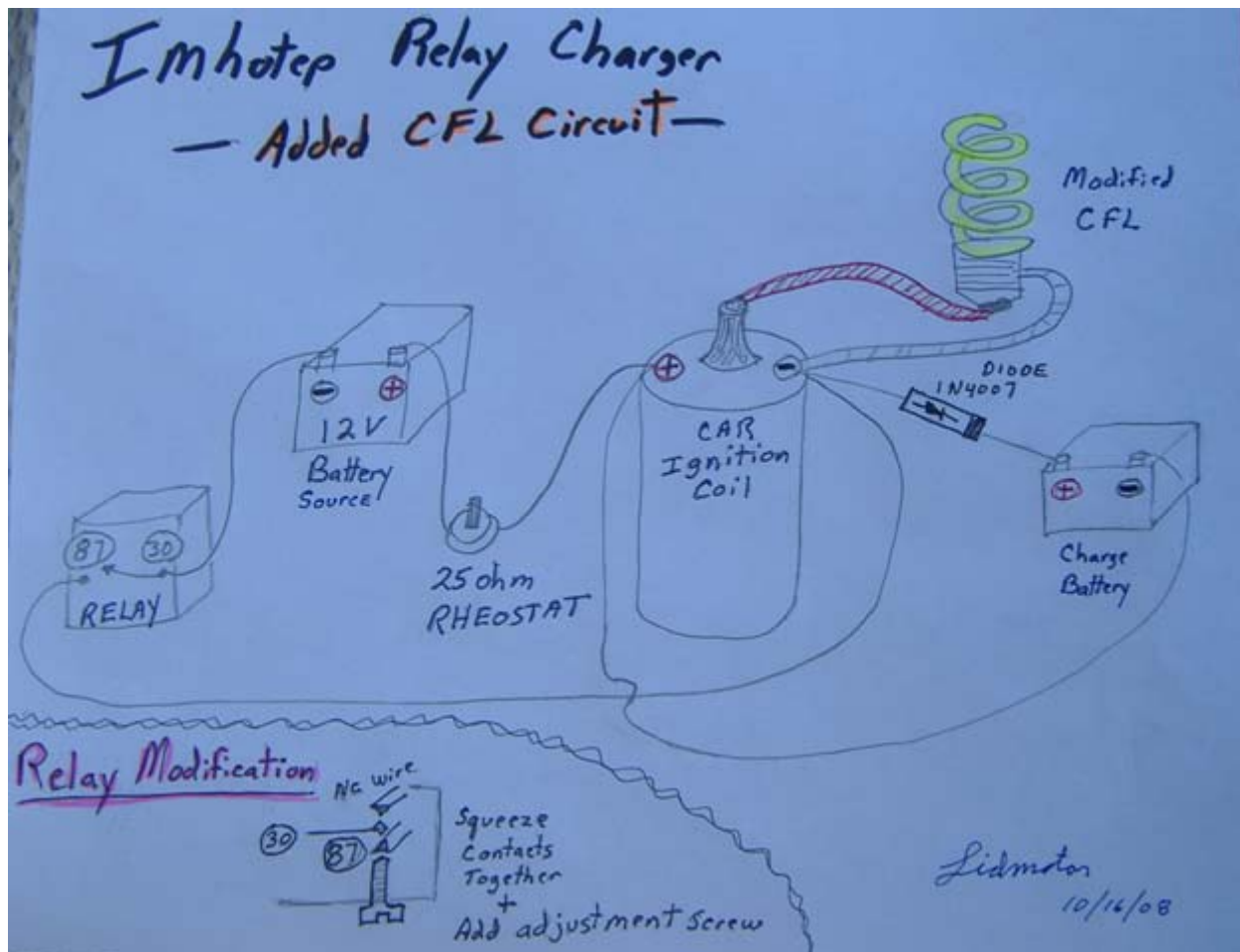
The following is a concept of a Multiple Relay Charger/Emergency Light done by Agongon. Note- Agongon reports that he hasn't actualized this



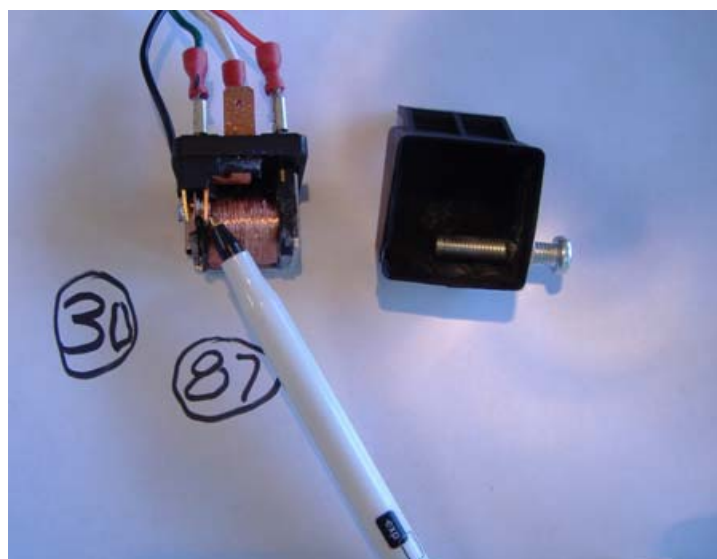
yet.



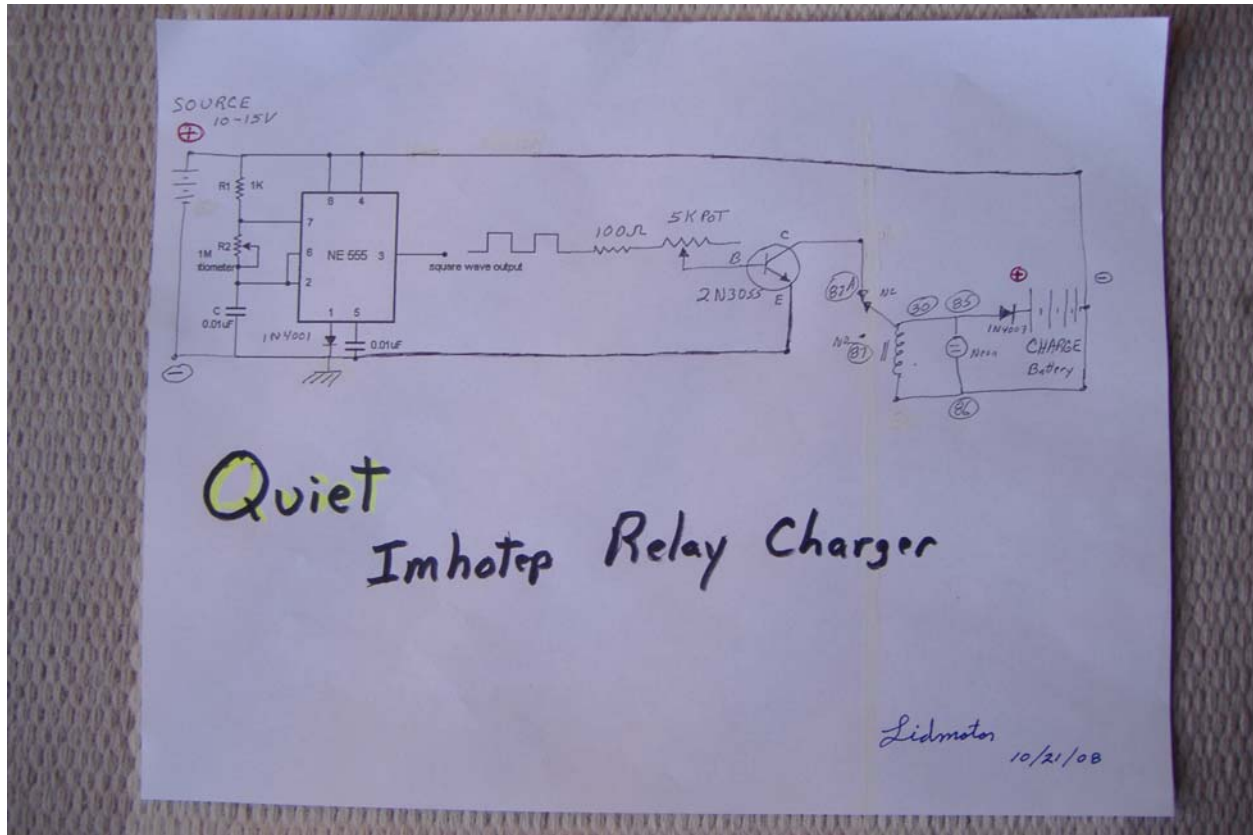
Lidmotor's Imhotep Relay Charger---CFL circuit addition



This is the CFL circuit diagram that I added to the relay charger and how I modified the Radio Shack relay to make it work. It is a 4 battery system (2 sources & 2 charges). It would be nice if we could figure out a way to make it just 2 batteries.



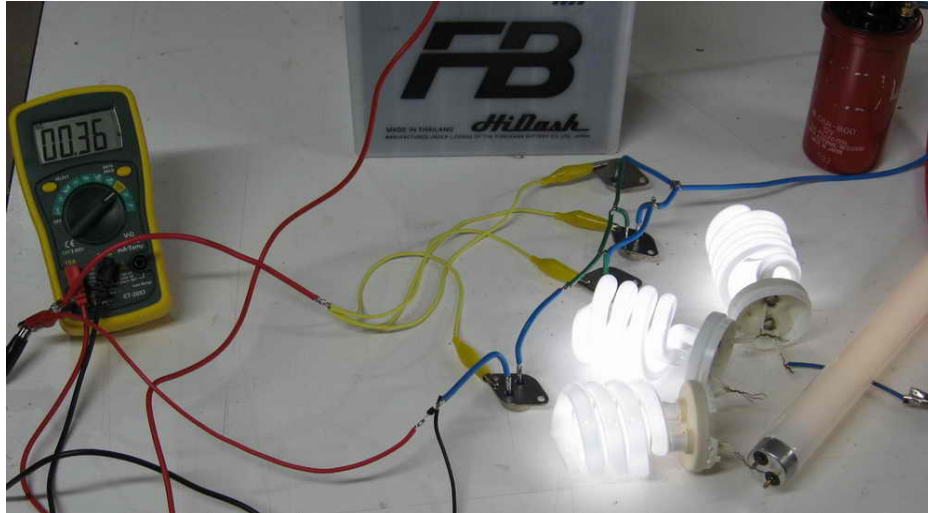
## [Imhotep Relay Charger Replication](#)



## [YouTube - Quiet Imhotep Relay Charger](#)

This circuit has since evolved into a self oscillating energy recovery circuit (with the Bedini process), which had excluded the relay for various reasons. Also incorporation of other elements like the earth ground rod.

## Aromaz circuit

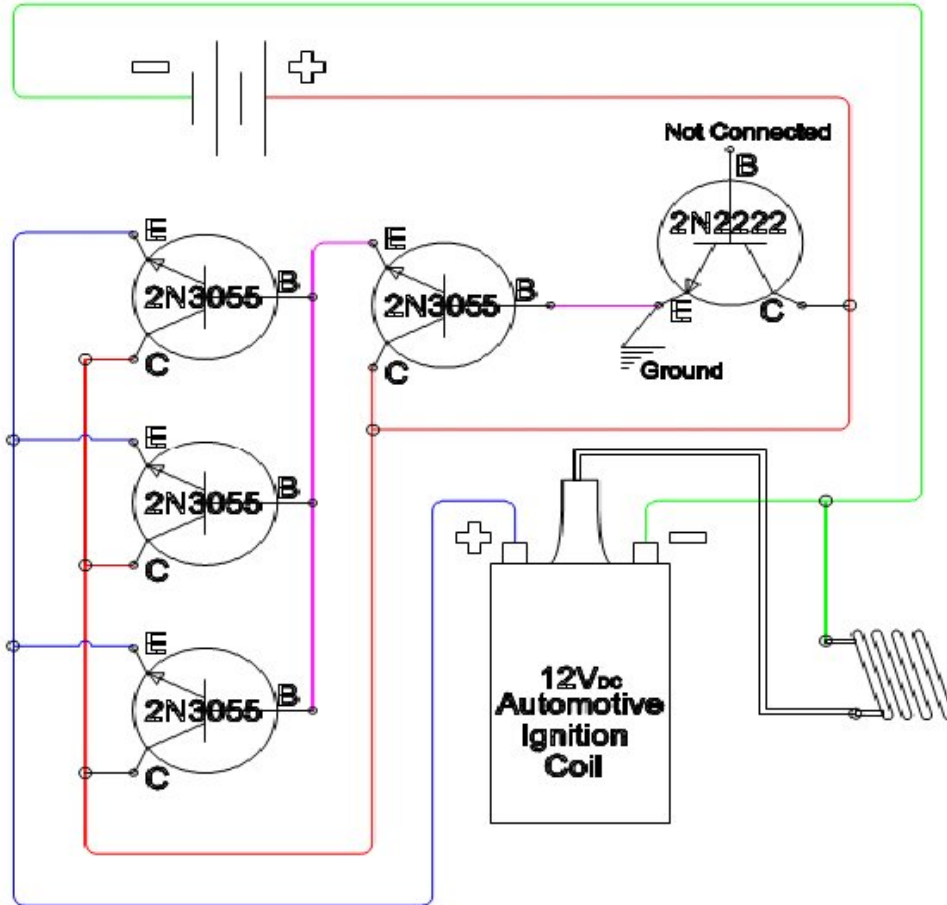


### Warning HIGH VOLTAGE!

These are my findings; I have now three systems running. One set has the transistors mounted on heat sinks, but because they are running cold, I have two more sets just lying on the table. Connect one light – no Earth is OK, with earth is 2x brighter. (Brightness by eye only on this stage)

Connect two lights – no earth = stronger on both, with Earth much stronger on both.  
Connect three lights – no earth = stronger than two lights, with earth all DIM a little.  
Keep HV wire on one end of the three CFG tubes connected in series no connection on the other end, no earth; – first tube reasonably bright, second low and third almost none. Add earth (to 2222) and all three brighten up. Then I took an 18 Watt fluorescent tube, connected negative from battery and it light up. Other end not connected to anything. However, low power – but then touching with finger along the glass tube, the part from connector to finger light up.

Back to three CFG's connected in series and the earth connected to 2222 – Sparks: Periodically the spark gap can be as much as 12 mm on and off for maybe 30 minutes, then it goes down to 1 mm for some time and after a while suddenly picks up to 10-12 mm again. Seems to be an irregular waving action, I can also hear variation in the resonance 'singing of the coil' though very soft.



One of the interesting effects in this circuit is the negative resistance exhibited by the use of the 2N2222 transistor. More detail of this is discussed in the faculty section below.

### Videos

[YouTube - Aromaz Short Personal Introduction.MP4](#)

Backtrack and review some of the experiences and findings - a simplified version of our honored Imhotep Radiant Oscillator:

Part 1 (of 2): [YouTube - Aromaz 001 - Simplified Imhotep Radiant Occillator Part 1 of 2.MP4](#)

Part 2 (of 2): [YouTube - Aromaz 002 - Simplified Imhotep Radiant Occillator Part 2 of 2.MP4](#)

Before Lidmotor, Bodkins and Aaron shoot me, here are some original lab notes: (Remember most of these videos are now few days old, so you have found some of this before I posted the video's today.)

Dynamic Resonance Theory: (DRT) Original lab video notes

Original discovery Part 1: [YouTube - Aromaz 003 - Original discovery Dynamic Resonance Theory.MP4](#)

Original discovery Part 2: [YouTube - Aromaz 004 - Original discovery Dynamic Resonance Theory.MP4](#)

Original discovery Part 3: [YouTube - Aromaz 005 - Original discovery Dynamic Resonance Theory.MP4](#)

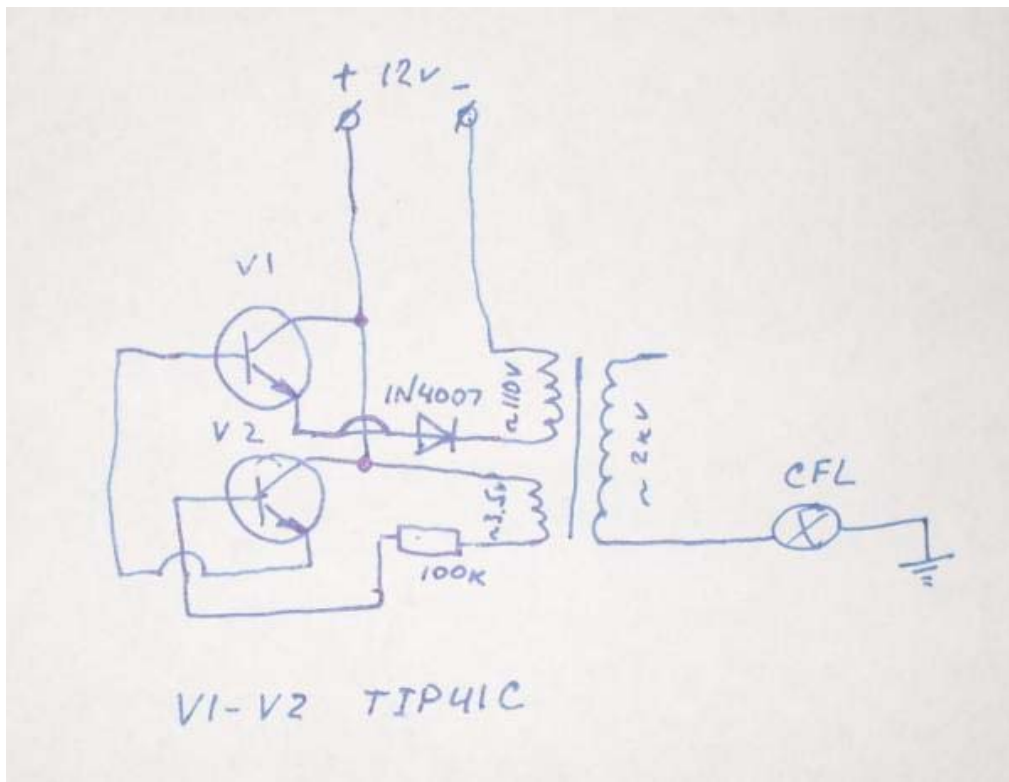
Original discovery Part 4: [YouTube - Aromaz 006 - Original discovery Dynamic Resonance Theory.MP4](#)

Overview Part 1 of 3 - [YouTube - Aromaz 010 - DRT Final presentation Part 1 of 3](#)

Overview Part 2 of 3 - [YouTube - Aromaz 011 - DRT Final presentation Part 2 of 3.MP4](#)

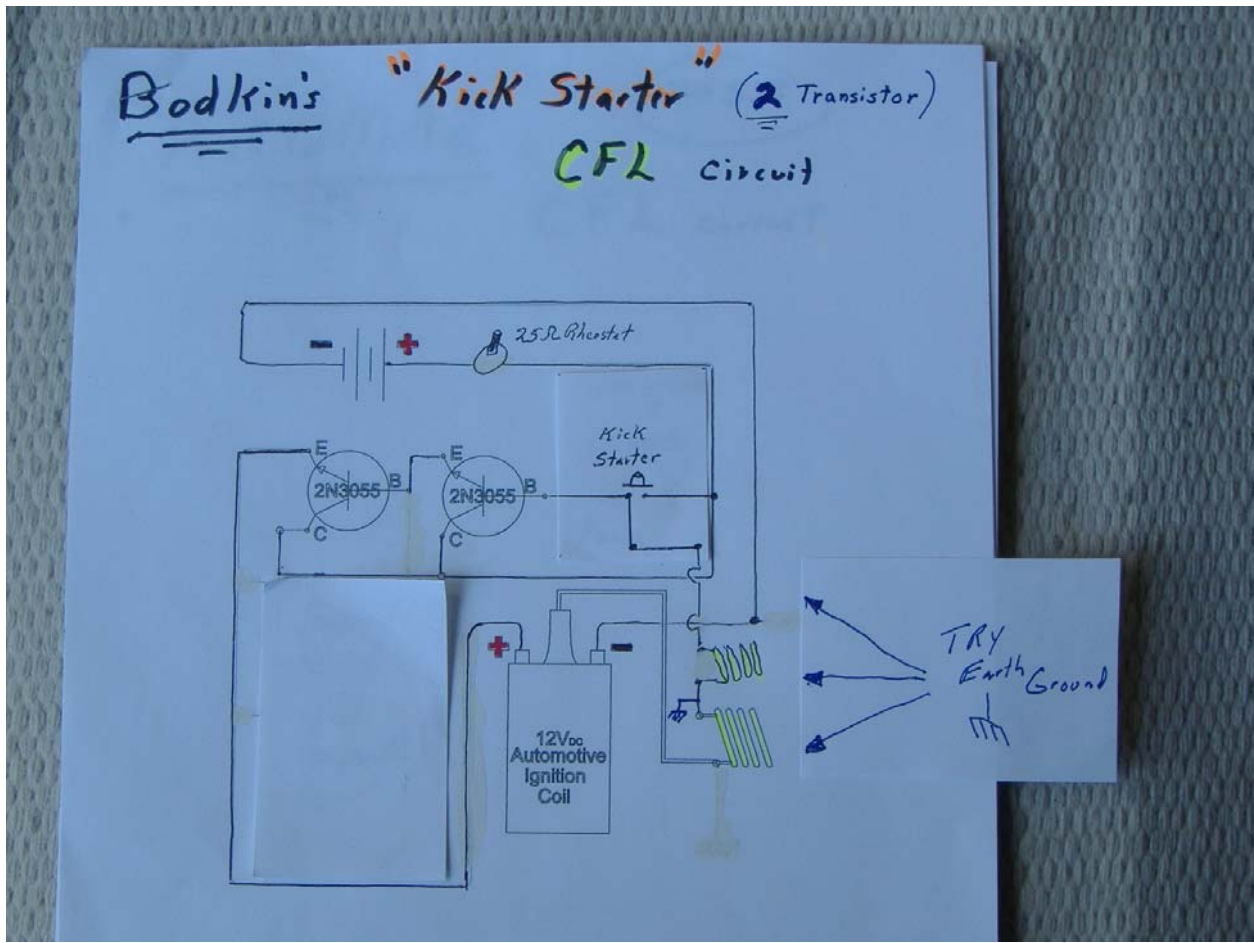
Overview Part 3 of 3 - [YouTube - Aromaz 012 - DRT Final presentation Part 3 of 3.MP4](#)

### Mlurye variant



### Lidmotor's -Bodkins kick starter

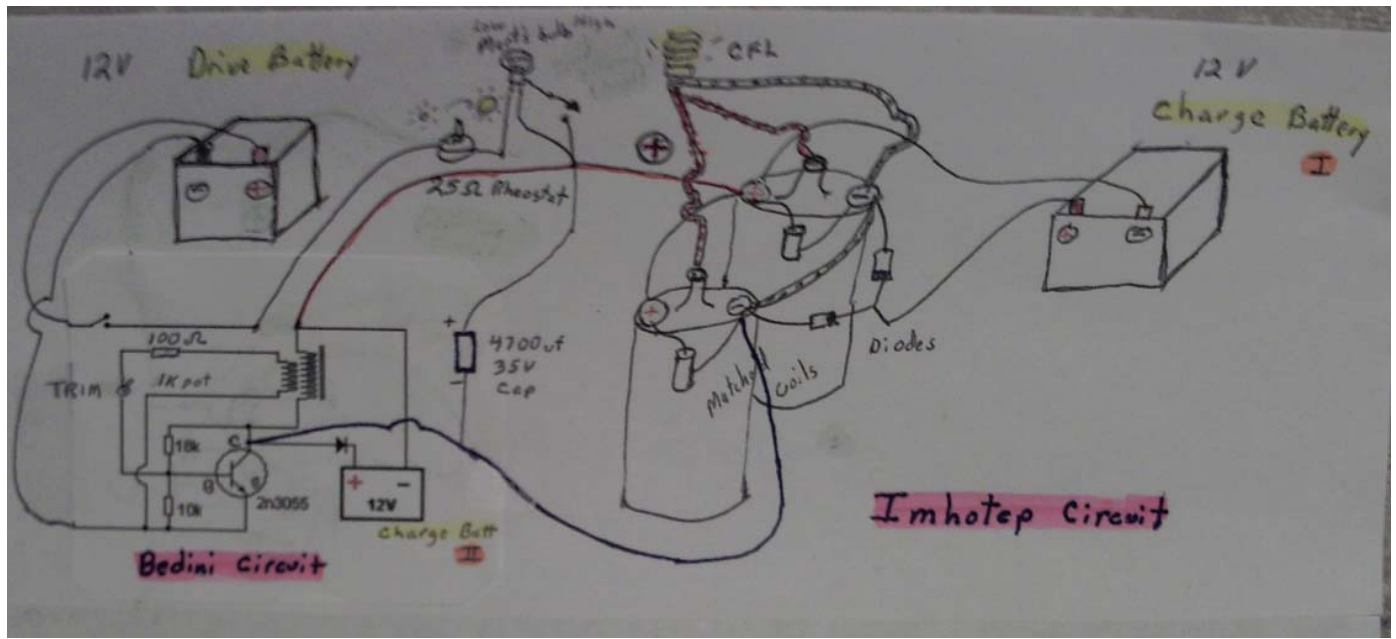




[Aromaz CFL Circuit](#)

Lidmotors Imhoptep Bedini solid state circuit





The lid motor Lunch box Imhotep Bedini circuit

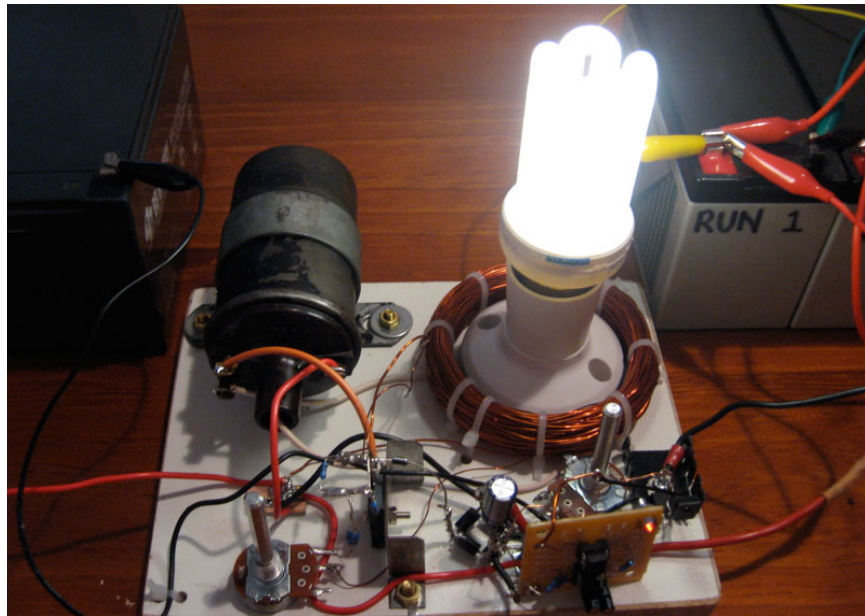
### [Imhotep Radiant Oscillator Lite -- Solid State](#)

Comments-It is a non- standard SSG coil. 250 turns of 26 gauge and 650 turns of 30 gauge. The core is a bunch of nails with epoxy glue. I went to Radio Shack and got the wire and just used what came in the bag. It isn't twisted. I just started wrapping the wire around an empty spool together until I ran out of wire.

Imhotep's -I used an air coil with no core, 450 windings each of 32awg and 26. Equal windings no twisting. i used a 50k pot, it's a little touchy. Used a 25ohm rheostat, 18k 1/8 resistor and 10k 1/2 watt it's all I had worked right out the gate. drew about 300ma brightness is good. No more click the bees are gone. Used to use an am as a sniffer when i installed cable with a beeper on the cable line. Had forgotten about that trick. Worked great.

### **Ren's Bedini Solid State oscillator with adjustable cap pulsar recovery**

Shown here running on a 12v 12 amp hour @ 300-350ma. Charging 12v 14 amp hour (parallel pair of 7 amp hours).Charges really well, light is useable. Ignition coil doesn't have the cap across it yet, may or may not make a difference.



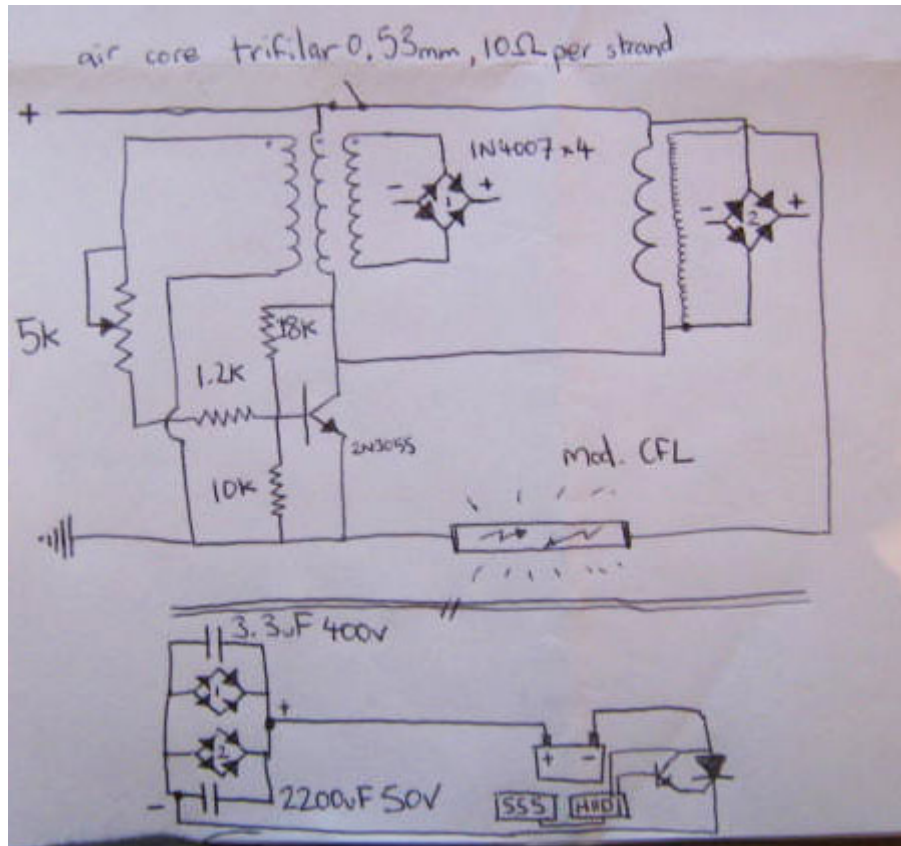
Some parts are left out on the 555, you have to do your homework if you want them. Start here -> [24 volt cap pulsar battery swapper](#)-

All components can be changed or altered, but please note it IS John Bedinis schematic and is copyrighted/patented etc. The ignition coil is paralleled to the power coil of the oscillator, no cap across it, doesn't work for me if there is. Can use 2n3440 or mje340 or 2n3584 or any small npn rated for high voltage probably. Try different cap sizes if you like, just make sure if they are low uF that they are HV. Nothing under 50v if smaller than 10000uF. In my opinion a smaller transistor for the main oscillator works better. JB suggests the BD234c (?) I have used an MJL21194, but a mj3055 or 2n3055 would work, probably even better. Bridge needs to be HV too, use 4 1n4007's, its allot cheaper.

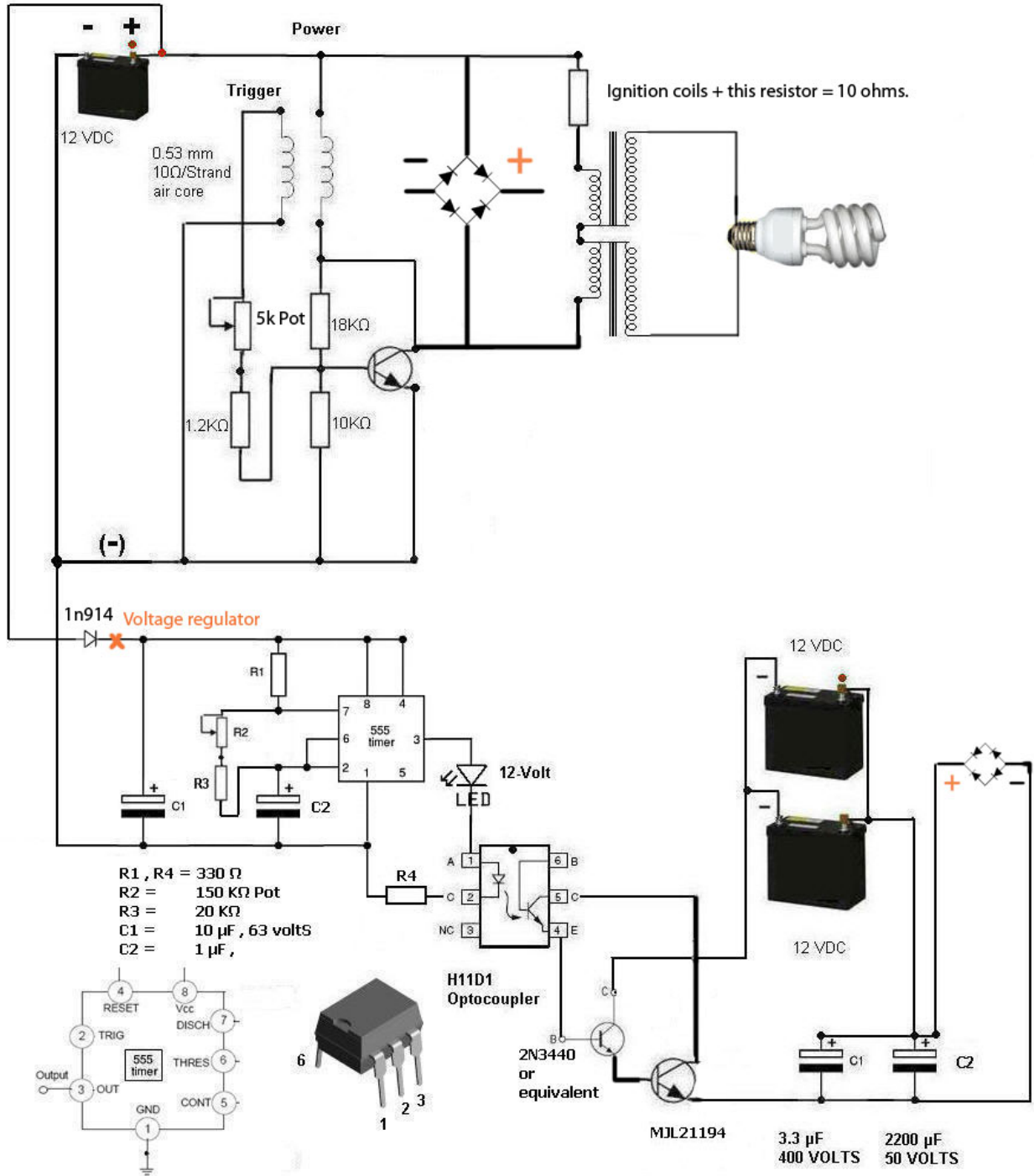
**Note the Fluro doesn't join back to the ignition coil terminal.** Refer to previous posts and other threads if clarification is needed for the cap pulsar (i.e. 555/opto/SCR. The 555/opto/SCR is really simple once you understand the basics of it. The cap that is filling on the backend will continue to fill as long as the oscillator is running and there is no load connected to the cap. The Cap Pulsar (as implied) simply connects the charging battery to the capacitor periodically via solid-state components (ie no mechanical elements). The mechanical equivalent of the circuit can be built by just putting a simple on/off switch on one of the legs to charging battery. Cap charges up to set level, let's say 15v, you press the switch on, cap dumps into battery and drops to level of battery, you let go of the switch and the cycle begins again. Too easy, except you dont want to sit there and switch the cap on and off do you!

A basic description of each part is this:555- this is used to create our signal for closing the switch.h11d1- used to optically isolate the switching load from the 555. (You can

think of the h11d1 as similar to a relay, in that a small signal which passes through it is used to throw a switch which is isolated from the original signal and can switch much more powerful loads.)small transistor (2n3440/2n3584/mje340 etc) - Used in Darlington pair configuration to amplify the signal that comes from the h11d1.SCR - is our switch. Incidentally, the SCR has a very low voltage drop, and may actually be more desirable than the output diode in the standard setup.



Second addition



**Note:** MOST OF THIS CIRCUIT IS JOHN BEDINI'S.

Ren reports: I Just hooked up the cap pulsar to return to the source. Doesn't charge the source, but drops amp draw significantly. On 12v maximum amperage was 300ma, now its maximum 100ma. The light will stay lit down to about 30ma where it ceases. What's even better is on 24v it used to be maximum 500-600ma, now its 130ma max for double the brightness of 12v. Same with 36v, 150ma max, can be allot lower if light output isn't too much of a concern.

So perhaps the cap pulsar is still useful, if one wants a single battery efficient unit. All of this and I still haven't grounded directly to ground a la Bodkins (circuit below If you want to experiment guys just place a largish cap over the input and have the cap pulsar connect directly to this. Could be cool, if you want to run off one battery it does, but if you want to charge, say off a solar panel etc then unhook the cap pulsar and charge another battery.

To get it to go solid-state you will need something in the vicinity of 2-10k (thats 2000-10000 ohms) on there. Try a 10k pot, but make sure there is a fixed resistor in there as well. 100 ohms or so. It is very important that you don't just connect a pot to the base alone.

Solid-state can be tricky to start sometimes. Hook everything up except one of the leads to the run battery. Make sure you have an amp gauge in the circuit so you know if it is drawing anything when you connect the last lead. It could be going solid-state and you don't even know it because its frequency is too high to be audible.

#### **Notes from Ren:**

I just wound that coil till I ran out of spool; I don't think the ohms have to be a set figure. One long length is advisable, but not essential. However I feel it is important that all wires used are of the same length, but not essential that they be of the same gauge. 1 to 1, trigger can be thinner if desired. Id opt for at least 450 turns if you can manage it, though it will still work for less turns. If you use a thinner gauge you will have a smaller current draw, a thicker gauge will flow more current, and of course charge better too. It's up to you to figure out what you want from the system I guess. Coil wasn't litzed or twisted, this could make a difference perhaps. The Coil form was a fishing line reel, it had a massive center core, so it looks big, but the coil itself was only about 10-12mm deep. The rest is air core well plastic core to be exact.

I have a bifilar version with 0.9mm power and 0.5mm trigger, probably 300 turns. It is adjustable up to about 600ma. If it was bifilar both 0.5mm of the same dimensions it would probably struggle to make 500ma draw. One of the reasons I mentioned the ohmage per strand was I found a slight increase in efficiency if you tried to balance the ohms of the ignition coil to match. In my case the ignition coil was around 1.5 ohms, so an 8 ohm resistor was added to bring it closer to 10 ohms. My theory was that the ignition coils primary is paralleled with the power winding of the Solid state oscillator,

and any energy flowing through the winding would choose the path of least resistance. A small drop in amp draw was noticed when the ohms were made to match.

I have dismantled that unit now unfortunately, parts off for bigger and better things. I may rebuild it soon, I am working on a sequential capacitive discharge system which I may incorporate into another Radiant Oscillator lite etc. I'll see if I can dig up a photo, I don't think I have any though...

I'd use 1N5408 diodes, or if you want to try something different try the UF equivalent (uf = ultra fast) uf5408 or uf4007. Also, I think it's worth exploring placing the primary of the ignition coil on a separate transistor, much like a multifilar bedini SG is. This way it has its own switch and perhaps it won't detract from the charging circuit as much. This may mean a higher amp draw though. If you are unsure of what I am getting at let me know and I'll draw you a schematic.

Regarding the fan. If I can remember correctly what I did in my replication was set up the fan in simple SSG fashion with one transistor and with the output diode going to the cap pulser part of the solid state circuit. You could have two separate bridges, one for the cap pulser and one for the fan, and just parallel the bridge outputs, with them both filling up the same cap, or each could have their own cap, or the fan's diode could output straight to the AC terminal of the bridge maybe?

I can't remember exactly how I set it up, but I basically got the Solidstate working, then got the fan working, then combined the two so that the output from both was funneled into the same charging battery. This is handy because the lighting part of the circuit seems to detract from the charging part somewhat, and with the fan going charging increases. Actually, you've just inspired me to rebuild it again, amongst other projects on the side. I will tinker a bit and see if I can make any improvements. I've learnt quite a bit since so we'll see how it goes.

Switching between the fan and light is easy. Make the solid state unit, cap pulser and all. Get it to function properly. Then add the IROL ignition coil in parallel, with a switch that will disconnect it from the positive. This way the solid state can charge efficiently without the light. At the flip of the switch the light is functional, piggy backing off the oscillations in the solid state unit. Last but not least the fan can have its own switch isolating the positive terminal from the power winding, switch this and spin the fan and you have all three cranking. Helps to have a buss bar for the positive and negative terminals of the run battery. You will end up with three switches coming off the positive, one for solid state, one for the IROL and one for the fan. Remember to put a voltage regulator in for the input power of the 555 on the cap pulser if you intend to take the front end over 18v.

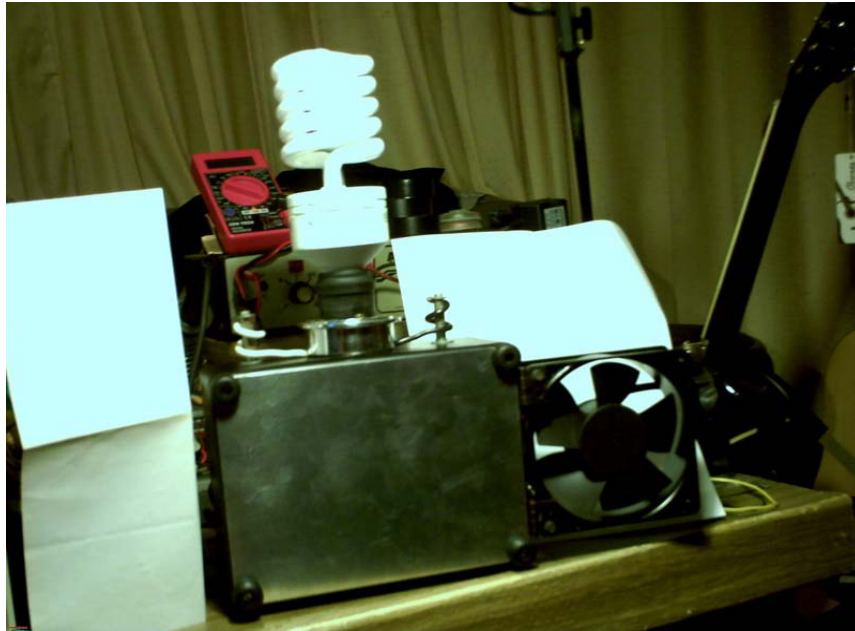


[Lidmotor's Imhotep Oscillator Fan/Lite--Solid State Cap Pulser](#)

[Educational -Imhotep's Radiant Oscillator Video with pulse charging](#)

### Adding in the Bedini Fan

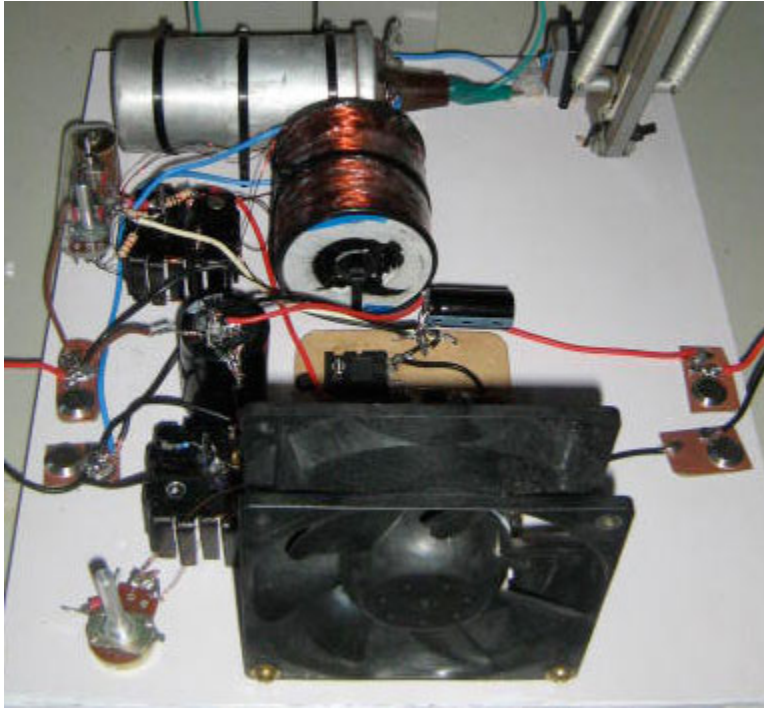
Imhotep has added the Bedini Fan with the original relay included; others have chosen a solid state version based on the Bedini circuits.



Imhotep's comments- *This is a multi level project, some people will choose to go the simple route, which is ok .to make the relay reliable you have to do some tweaking and i have .mine has been running for days and will last a long time because i used silicon lube (like a motor's bearings uses oil to last longer than an hour) and current limited the contacts arcing to =no arcing. The light is in low light mode(2700/3=900 lumens) aprox but is usable light. The current draw is low (long battery life) and the charging is good.(only use charging off the car coil.) i added a switch to boost the light to near full light output. High light mode (still using relay with additional current limiting) works great. There is also a switch to run the fan in recharge mode with no light, then switch to high light mode using the charge battery off the fan to run the light and the source battery to run the fan and the third battery off the car coil for charging. **Also add in the solar panel for primary charging and you have a simple almost self sustaining fan and light (must use bigger fan ,i was not able to run relays directly off smaller computer fans without paralleling the outputs ,but the big fan is a monster.***

### Ren's Solid state and Fan





[Ren's Radiant Oscillator with light and Fan](#)

[Imhotep Lite--Lidmotor LB Circuit](#)

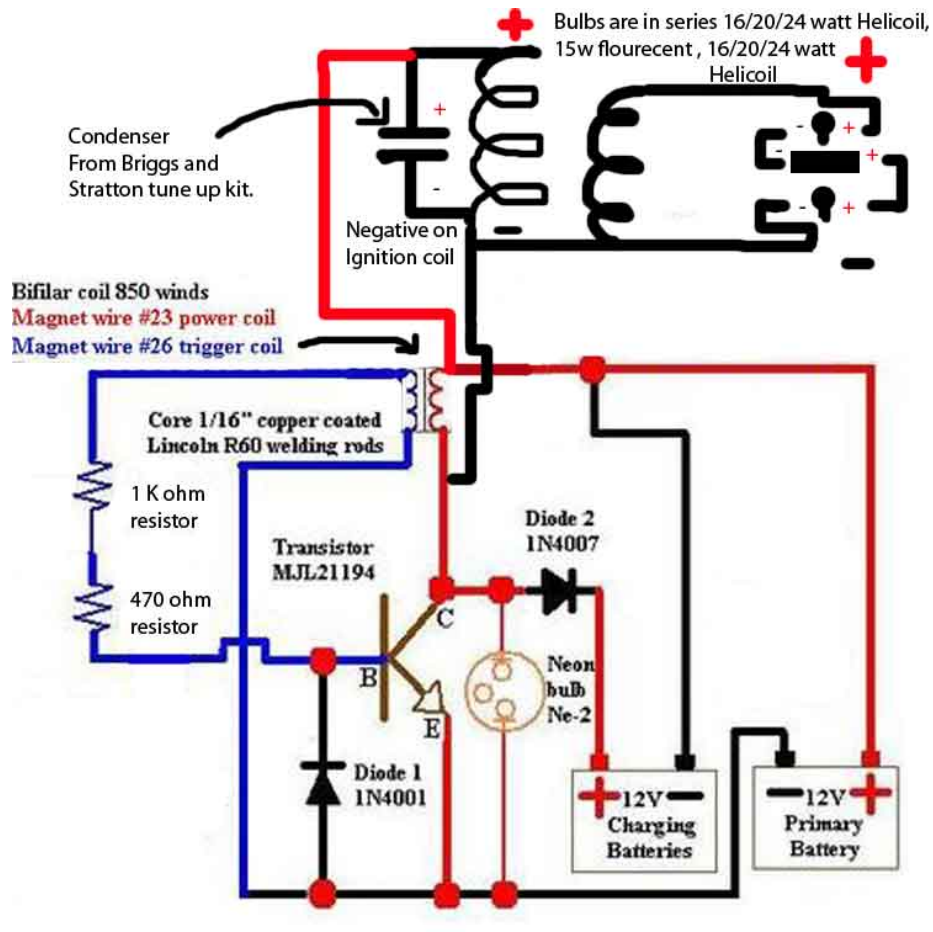
[More Lid motor videos](#)

[Imhotep Lite Solid State fan](#)

[Lidmotor's-Snack Box--- Bedini fan](#)

[A Lamp and Fan ---Lidmotor Style](#)

[\*\*The dude's SSG hybrid\*\*](#)



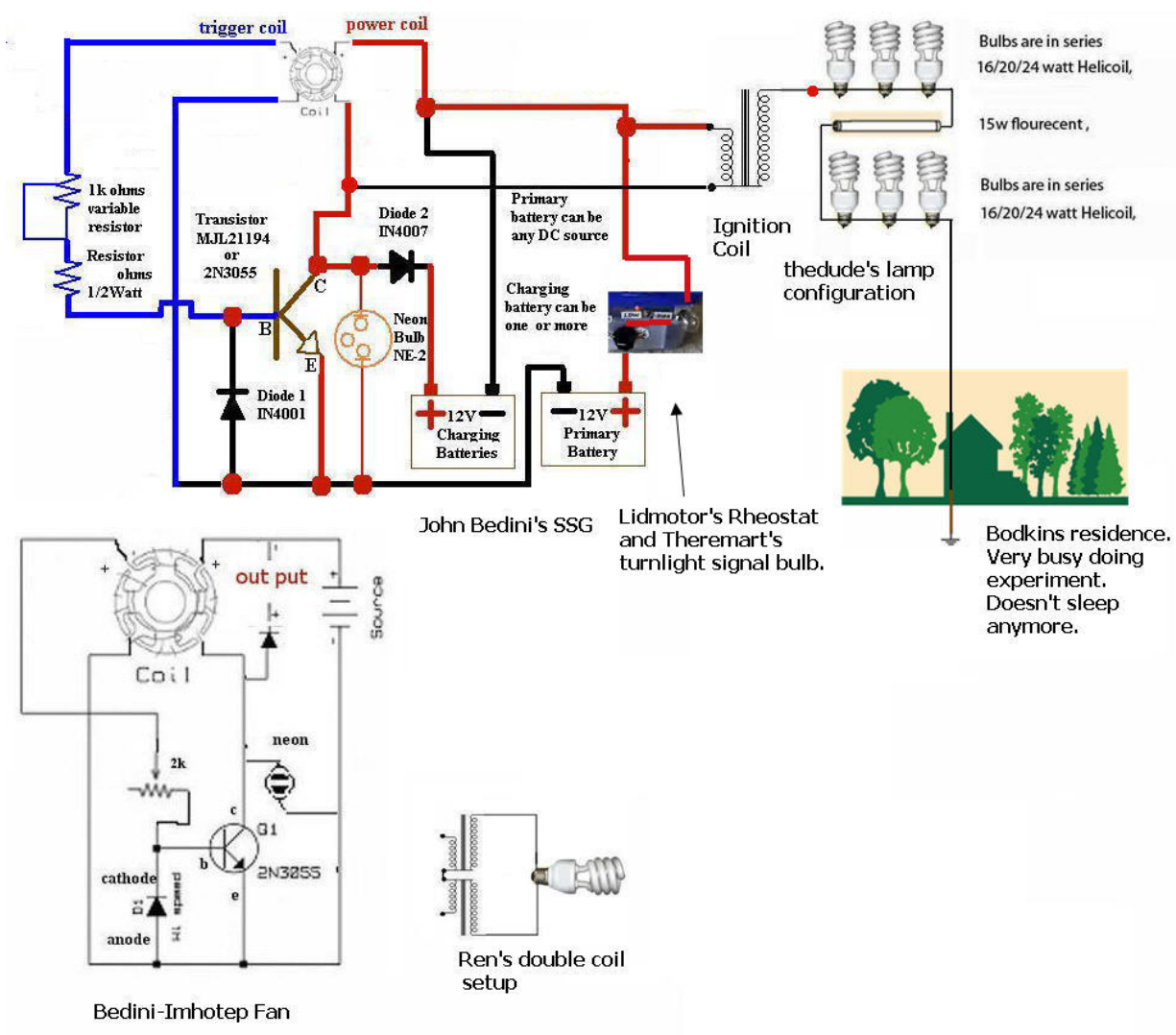
Original comments by "thedude" -

I hope i've made a legible schematic that makes sense. I was very surprised to discover that i seem to have had 1 k resistor where i had thought there was 100 ohm! At any rate i had tuned it with a 1 k pot, checked the resistance and replaced with a resistor of 470 ohms where the pot was when i assembled the existing circuit. The 1 k ohm has always been in the circuit from the start. For the most part I've got all the circuits on my wheel in parallel, the bifilar coil (power) is parallel to the ignition coil as well.

I'm testing with 1- 12 volt 4.5 amp hour batteries on the primary and secondary now and have been running what i'm beginning to think has to be COP >1 . At such a low amp output it ran all night last night with the source battery at 5.7 volts in the morning. I switched them and it climbed extremely fast up over 12 volts in around 10 mins or so.

<http://ca.youtube.com/watch?v=5wBV8zsgRrs>

**Bodkins Experiments**



Note: Mostly of this circuit is of John Bedini's.

[Brighter light no more amp draw charging a cap](#)

[YouTube - Bodkins Free Energy Radiant Oscillator Cap Chargin](#)

[Bodkins Free Energy Radiant Oscillator flow direction](#)

[LidMotor- Bodkins Earth Energy Experiment --Replication](#)

## Original Video in the series

[Teaser video](#)

Original comments -The best light output was done by the GE 150 watt equivalent from Walmart. I can't recall how many watts they actually say it draws I believe it was 42 watts. That one was pretty easy because it was larger. The smaller the bulb the harder it

is to convert. Peter altered that same bulb (the GE 150 watt equivalent) and unfortunately crack the first one, but was successful on the second one, so please be careful and sometimes you may need an extra set of hands to help so you don't crack the bulb.

### **First circuit disclosure**

[YouTube - \\*\\*~Imhotep~\\*\\*'s Free Energy Radiant Oscillator Lite](#)

Original comments - the relay is a 9volt dc relay contacts rated at 12amp at 120 vac or 24vdc coil resistance 500 ohm nominal coil current is 18ma. The car coil you just have to make sure it doesn't have the internal resistance wire or ballast resistor to get the same results. That's why i chose a 1967 Camero coil because I knew for a fact that it wouldn't have the resistor, you can use any condenser I just used one that was the best price in my area, and it's for a lawn mower and the car one was 3 times as expensive.

The teaser video was ran on 6 volts which was not as bright and a hard to find relay was used that's why i changed the circuit to the same relay that Peter had used because the relay I was originally working with was from old stock and we couldn't find replacements. And Peter had good results with his. He's on the opposite side of the country than me so I figured it would be one that could easily be found. But any relay with those specs could work as well as the coil could be changed too. And I'm sure it would work. You just have to watch the contacts for heat buildup.

The setup that we have devised has ran for a half hour to a hour at a time as the bulb heats up the current draw goes down and the relay does not get very hot. Don't be afraid to experiment with what you have on hand. Just keep an eye on all your parts for heat build up.

The relay is the one that Peter Lindemann used and is widely available. The one I originally used was from the 70's and is no longer available and the one from the 70's drew the least amount of current. but the one from radio shack was the mostly closed match. You can use any relay you want as long as the contacts can handle it, and the coil current draw doesn't matter you. Remember you are trying to impedance match the primary and the coil on the relay, the better the impedance match the lower the current draw, but you can use whatever one you want, your batteries might not last as long, and you can also use larger batteries. There is energy recovery on it. The first one i did i ran 72 hours straight and it did not run down the batteries but because the extremely high voltage the light output on the very first 9 watt CFL had diminished light output prematurely. So matching the bulb is also important. Its all a journey and a experiment. the bulbs are cheap, the relays are cheap and the coils aren't that expensive either. Through experimentation im sure you will find the perfect match and possibly be able to light the 4 foot regular magnetic ballast fluorescent bulbs if you get

the proper match.

You do not have to use a relay I used it for simplicity. You can use a 3055 transistor in self oscillation mode but you would have to use a heat sink and the current draw would be much higher, 555 timer and a FET, you can use a SCR. you can use a small dc motor with a magnet on the armature and a reed relay, anything to pulse the primary. Doesn't even matter what frequency, but remember you will have to experiment to get the best match for the longest lasting ability of the bulb, lowest current draw and brightest light output. Feel free to experiment and report any good findings to help other people. I experimented on this circuit for 2 months. as well as a month with Peter trying to get the lowest current draw, easiest design, best light output, and longest battery life.

You can use any condenser, the reason i picked that one was because the original 1967 camera condenser was 18 dollars and the Briggs and Stratton kit came with the condenser and the spark plug i can use on the water spark plug experiment and it was only 3 dollars. It was strictly cost. I tried to search for the value and voltage handling capability of the condensers and was not able to find any values or voltages published anywhere. And I did not put it on my capacitance meter because of the size. I'm sure it will handle the primary voltage the Briggs and Stratton one was actually designed for a magneto so its voltage handling was problem quite large, but you can substitute a large cap and try it, Its only there to suppress the arcing on the relay. So the contacts will last longer.

The snubber is variable also, the original snubber i used was 4.7 with 100 ohm resistor that was on the old 70's relay the radio shack blue relay i used the 1uf and 1k resistor. The blue one was also sealed since there is no oxygen getting to you the contacts will probably last longer because its sealed. The diode is a 1n4007 1000 volt 2 amp. It's used for energy recovery it puts out pretty good spikes for the charge battery.

There is no HV diode. I used the original spark plug wire because it has a capacitance value. And a certain resistance you can use a smaller wire but your voltage will be lower and your current consumption will be different. When i used the smaller clip lead wire, normally when you grab the outside of a plug wire while its firing you will get a nasty shock, so be careful, but with the smaller clip lead wire you get no shock when you grab the wire, Its running much lower voltage, probably 400 to 700 volt range.

The condenser is used in older points and condenser and coil or magneto circuits. It was originally designed to suppress the spark on the points and I am utilizing it to suppress the arc on the relay, so that it will last longer. As I stated earlier I could not find the exact uF and power handling capabilities but any lawn mower kit that comes with points and condenser can be used.

### [Imhoteps Radiant Oscillator lite CFL alteration](#)

Above is the new video with Peter's discovery and evidence and testing procedure

### [YouTube - Free Energy Important News Bulletin](#)

#### **Comments on the coils by Peter Lindermann**

I have a Ford Model T Buzz Coil at my shop. It draws .8 amps when run on a 6 volt battery, just 4.8 watts. It will easily throw continuous FIRE over 10mm! I thought, for sure, this thing will light the light. BLAH. It lights a "26 watt" bulb to about half brightness, but only makes the "42 watt" bulb glow a pathetic range. The T Coil's secondary coil has an impedance of about 3,800 ohms, whereas the Camaro ignition coil has a secondary impedance of about 10,000 ohms.

The system needs to have the right characteristics to develop a high voltage "shock wave" across the tube. For the fluorescent tube to light, the Mercury vapor must produce its characteristic hard UV emission, otherwise the phosphors won't "light up". The standard way is to ionize the gas and pass a bunch of current across it. Tesla's way was to send a high voltage "shock wave" through the gas, and limit the current to the absolute minimum. When everything is balanced just right, Imhotep's circuit is remarkably effective at lighting the light AND recovering the "unused" energy of the inductive collapse. Even Tesla wasn't recovering the unused energy from his lights!

#### **Imhotep's comments**

The 1500volt capacitor i used inside the bulb there is 2 wires coming off each side of the tube and one wire i hooked to the center of the screw socket and the other wire to one side of the 1500 volt cap that i pulled off the cfl circuit. I ran the other side of the cap to one of the filament wires on the second filament and then the other wire coming out of that filament I ran to the ground screw base of the bulb. You will easily be able to tell which one it is, it will have 1500 or 1800 and it will be close to the wire wrap area where you took off the wires for the tube, there is usually 2 or 3 of them on the circuit boards. There is also a transformer (or it at least looks like a transformer) Its actually a choke. What they do with the cfl they feed one wire with the pulse through the filament through that cap to the other side through one wire through the second filament and then back out the other side and through the choke back to the FETS inside the little circuits. I have completely back engineered the circuits and understand them completely. You can take one of the caps and it will help smooth the light output.

The reason it was not included because I wanted to have everyone get the rough circuit completed, before complicating it and changing it. Some of the more advanced people in the forums I'm sure will have many modifications you being one of them. Please report any improvements or changes. As far as the snubber, I used a 1 uf

160 volt and i also used a 4.7uf I didn't use any larger ones, the smaller ones helped suppress the arc and i used resistance from 100 to 1000 ohms. The relays made a big difference the older ones worked much better than the newer ones but that particular blue one from radio shack that peter picked out works really well with that coil. I've not been able to inspect the contacts cause it is a sealed relay, which is probably better and to quiet it down they don't get to hot, so i wrapped them with a little bit of clothe to muffle them.

If you remove the charging battery out of the circuit the current draw might go up a little bit, but there is no semi conductors to be damaged from the removal of the battery like the fans. Be careful tho, on my 1st experiment i was testing to see if would charge alkaline and I used fully charged alkaline and it burst their seals because the spikes are so robust on my particular relay configuration. In my configuration I made sure that the end of wrap on the coil went to the positive end of wrap on the relay and the beginning of wrap went to the shared beginning of wrap on the coil which is ground. That might have made a difference.

Peter made an excellent choice in the relay, it's a sealed relay so it doesn't have any oxygen flow through it, so it doesn't get hot. The relays make all the difference. Some of my relays worked better and like you some of my relays were worse. I wish i knew what exactly about the relay makes it so special it would make it easier to better pin-point what to look for. The ice cube relay worked the best, it was an obsolete radio shack design and it had a 160 ohm coil and I think it was like 50 ma. And it only had a current draw of at first 400 ma with great brightness but I discovered that not only was the relay old but the clip lead i used coming off the HV tower to the bulb, had only a few strands of wire making contact so it was adding resistance.

I guess the right resistance Peter & I freaked out at the ultra low current draw with such good brightness, but then it started to become intermittent operation and i tracked it down to that clip lead, so when I put a new clip lead it went up to about 700ma and that was also with a older relay. I tried 3 different old relays they were the old tv5 out of an old Sylvania TV, and they has about 140 ohm coil. And they worked well also. So i would look at the ohm values of the relays that you are using and see if they fall between 100 to 200 ohm. that seems to be a good match for the particular coil we used. But the 500 ohm relay that Peter picked out worked well also.

## **Original Circuits and Experiments**

Background on the circuit changes- <http://www.youtube.com/watch?v=fTS8i6XpRpI>

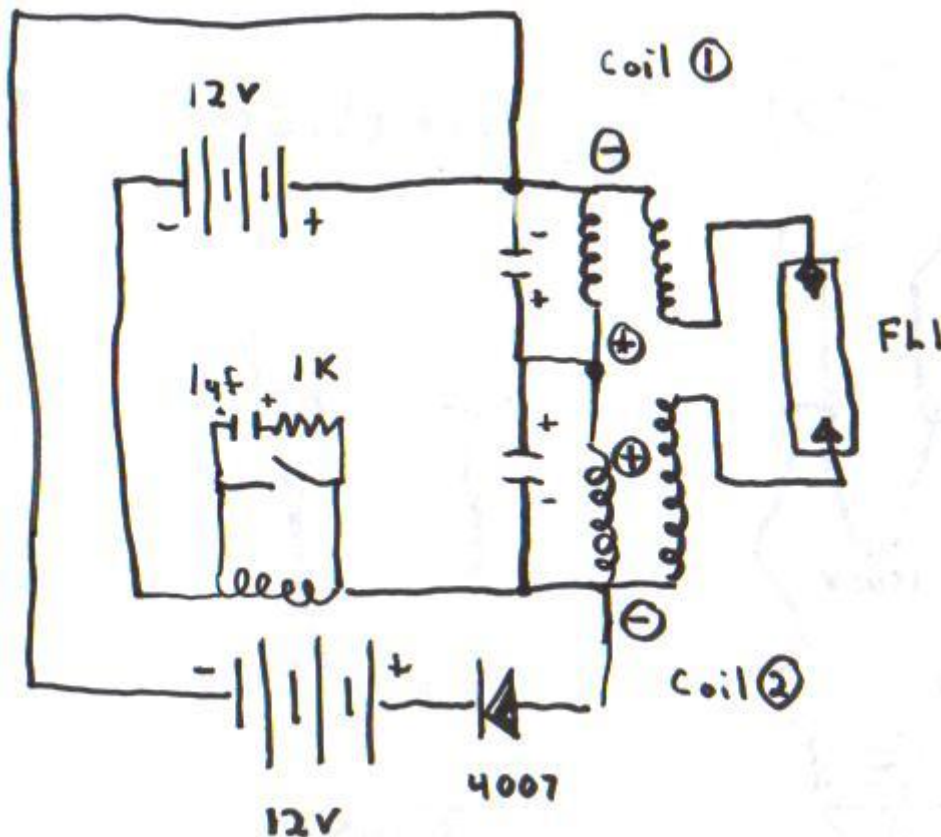
Reports-I have got the current draw down to 0.25 amps!! Lighting 2 bulbs at bright power. 2 CFL's on 3 watt power: [YouTube - 3 Watt - Free Energy Radiant Oscillator Lite](#). This illustrates the point of Tesla's HV lighting systems. The "light bulb" is running on



longitudinal shock waves, and does NOT represent a "load" to the circuit, in the classical sense. This is WHY the energy of the inductive collapse IS available for recovery....because it was NOT consumed by lighting the bulb! The difference in current draw between "bulb IN" and "bulb OUT" is just 0.02 amps (20 milli-amps). In your present circuit, that is all the energy consumed, wasted, or lost, to light the bulb. -End

Lidmotors: I tried using the neo magnet trick on the coil and it really works. I ended up running the oscillator on a small 2 watt solar panel. I am also going out of town for a few days so when I get back Imhotep's Oscillator should be on the shelf at the local store. Gosh this is moving fast. Good luck everyone. The dual coil idea should solve the brightness problem. - Lidmotor - [2 watt solar panel-- Imhotep Radiant Oscillator](#)

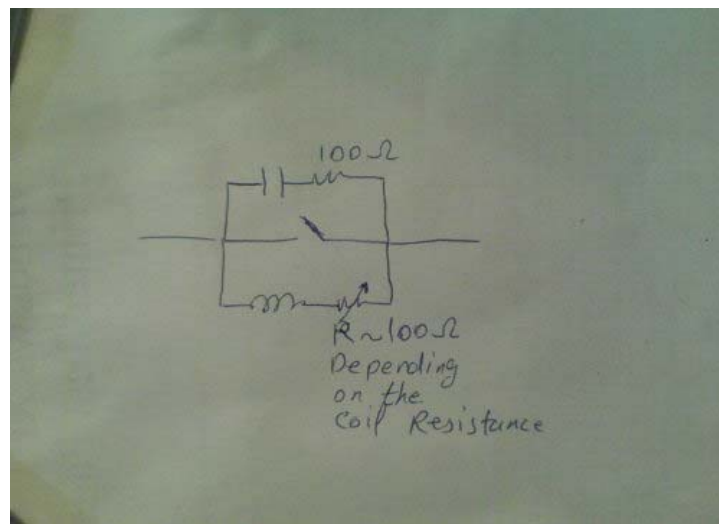
Comments-The magnet addition is a great idea i think with the dual coil addition and the neo we might be able to get it to the low amperage we want and the brightness we are looking for. The additional magnet reminds me of the hendershot coil, whereas he took a buzzer, which is similar to the relay, and positioned a magnet until he got it in oscillation with a unique coil and capacitor combination using a basket weave coil and two vertical output transformers and various other components. But it stayed in oscillation and provided pretty high wattage of output and had no power source at all. I dont think anyone has been able to replicate it. But the magnet addition is very interesting and i will be trying it on my setup. -End



We are hoping someone could shed some light on a solid state version. Probably a good idea is to have an opto isolator in there somewhere for the 555 too. Most of these are small and are powered by 12v. usually an ignition coil or TV flyback is used.

### Elias findings

There is a simple way to decrease the current draw, without using a neo magnet and it is using a 100 ohm resistor series with a potentiometer. The combination must be wired in series with the relay coil. (Only the relay coil, and not the relay switch, in this way we are increasing the time constant of the inductor resistor combination)I managed to bring down the current draw of my circuit down to around 0.38-0.39 Amps from 1.13A without affecting the light output.



Peter Lindermanns comments- This is GREAT. By placing the resistor in series with the relay coil, you are making the field generated slightly weaker. This shortens the time the relay is shorted and conducting full power to the ignition coil. This simple modification provides PWM control of the relay!!!This is also strong evidence of our basic thesis. The CFL is being lit by the "voltage punch-up" or "longitudinal shock wave" or "radiant energy spike" in the system, and NOT the amount of current used by the circuit! As you can see, the energy available in the inductive collapse must be given a path to discharge. If you don't give it a battery to charge, or somewhere else to go, it will simply discharge back across your relay contacts and burn them out. You can also see that the light generated by your circuit is the SAME whether you collect the return energy or not.

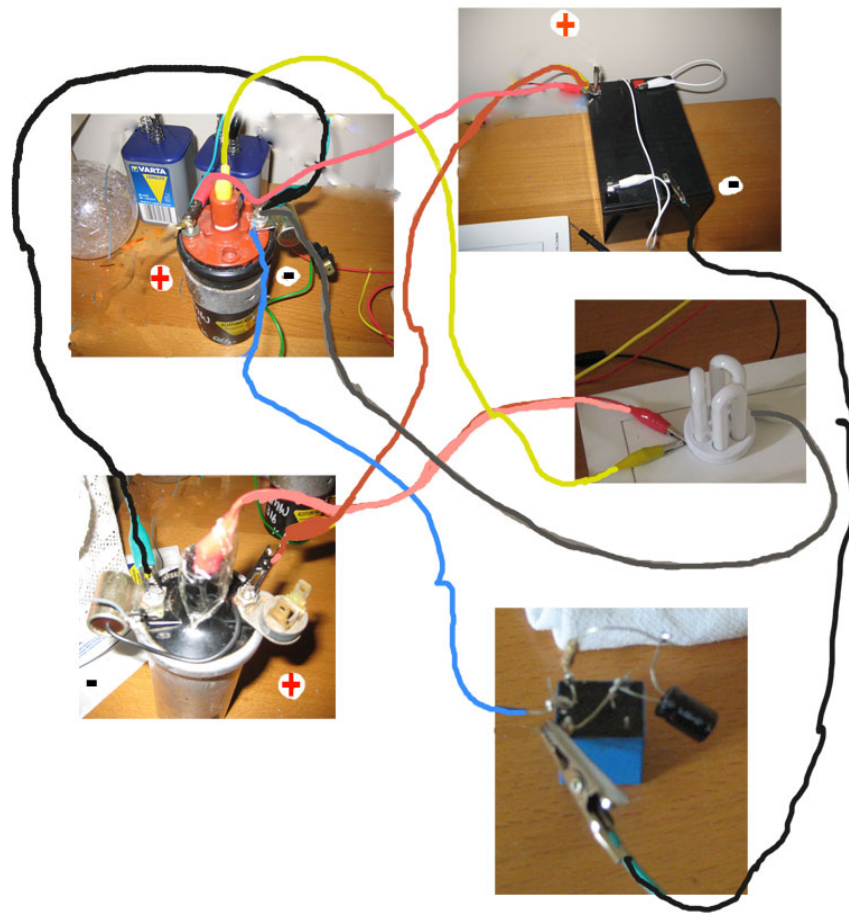
Most circuits are designed to WASTE this energy, by throwing it away. This is illustrated perfectly in the link to the DIY Ignition Driver. Here, the circuit designer just uses a reverse diode to short the reverse pulse of the primary coil out with D1 across the transistor T2. Then we are told that it just takes that much energy to power our load. When the circuit is built properly, you can see a much more interesting TRUTH. The truth is, most of the

energy in the circuit is NOT used to light the CFL, and is, in fact, available to be recovered and used again.

All of the same tricks that have been discussed in the Electric Motor Secrets thread, are applicable here to light the CFL. Once the arc is struck, the lighted gas in the CFL has almost no resistance at all. That means that it is nearly impossible to drop any power across it! The energy invested in creating the magnetic field in the primary of the ignition coil is not used to light the bulb, and this energy is mostly available to be recovered in the circuit provided for that function. End

### New coil result

i have replicated the dual coil setup ,it did work as peter has instructed to wire it . The results were the same it charges the second battery. it however is not as brilliant on the light output, which is surprising to me . The original circuit is the winner; it has the brightest output and the lowest current draw. also the original relays i used had the lowest current draw of 500 to 700 ma but the relay that peter picked has the brightest light output.

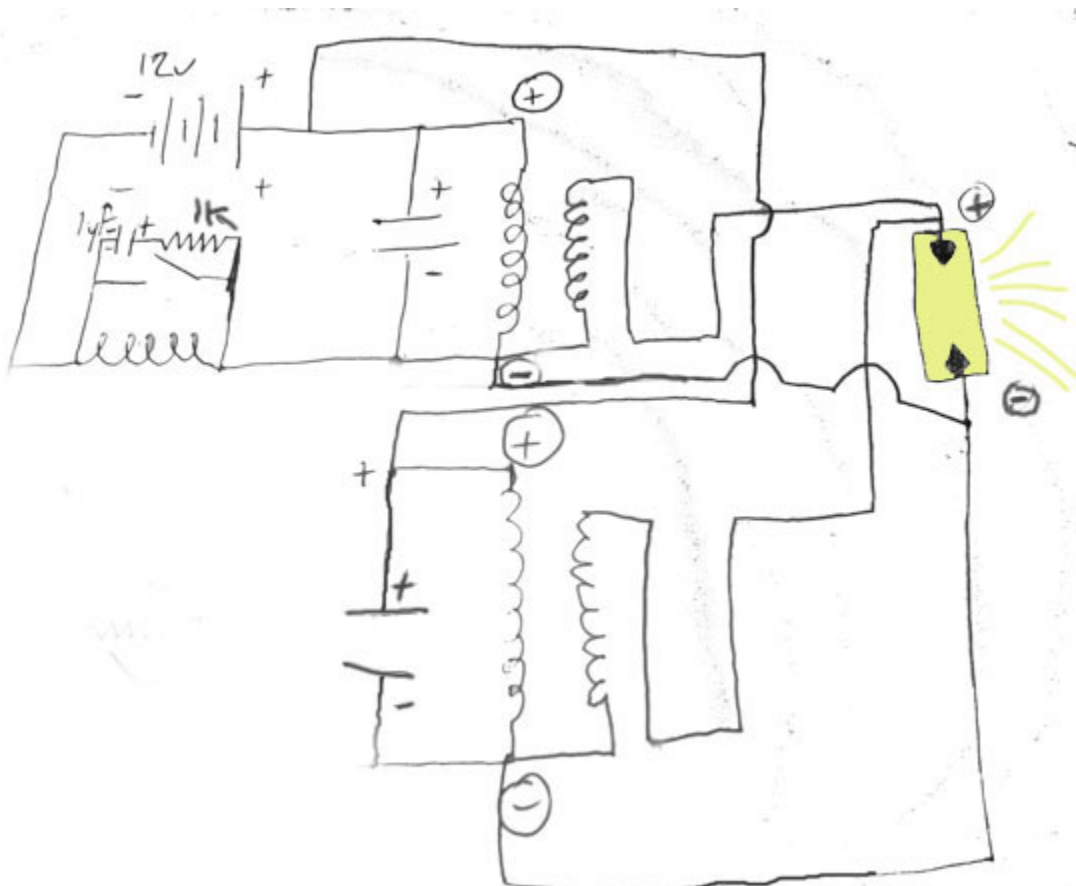


To get the intense light, with the schematic I posted, I had to play around with both relays using 2 neo magnets and for some unknown reason, get it to a point where all of a sudden the bulbs just hit high intensity light.. It's quite exciting when you get it right and you can tell because the whole room lights up .. I'll try and get it onto video later but it won't show or mean much without a light lux meter. When it does hit this high intense light it does not change the ampage draw because I can then slowly change the neo magnets to draw around 1.5amps.. If i make the relays pull any less than this then the bulbs instantly go dim again.

Only 1 relay needed to run 2 coils now, more info in the video:

<http://www.youtube.com/watch?v=YWcPnwAEVvs>

I think the relay is becoming hot because it is getting some of the feedback voltage from the coils.. I was not charging batteries with the feedback so this could be why.. I will try with batteries being charged to see if it makes a difference. Note- if the relay is getting hot you are getting too much arc on the contacts, mine ran 72 hours straight thru, no heat ,no arcing i used ice cube relay on that test and could watch test real time , i adjusted snubber and tried a few combos till the arc was gone . The relay i am using now gets warm not hot, if you are using exact same everything it should be the same.



To get the intense light, with the schematic I posted, I had to play around with both relays using 2 neo magnets and for some unknown reason, get it to a point where all of a sudden the bulbs just hit high intensity light.. It's quite exciting when you get it right and you can tell because the whole room lights up .. I'll try and get it onto video later but it won't show or mean much without a light lux meter. When it does hit this high intense light it does not change the amperage draw... because I can then slowly change the neo magnets to draw around 1.5amps.. If I make the relays pull any less than this then the bulbs instantly go dim again.

[Imhotep Radiant Oscillator – Boxed – By Lidmotor](#)

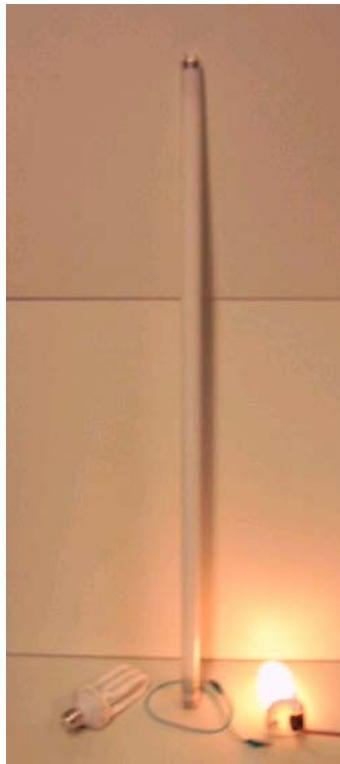
[Imhotep Radiant Oscillator Lite -- Solid State- By Lidmotor](#)

[Super Capacitor Imhotep Radiant Oscillator- By Lidmotor](#)

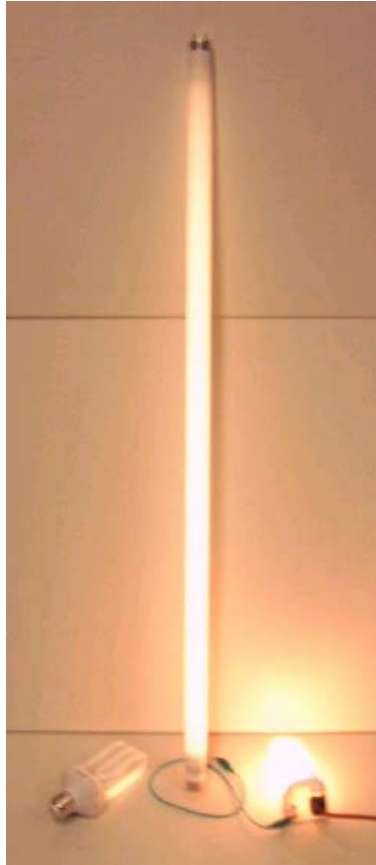
### **Eric's (Tecstatic) experiments**

#### **One wire solid state HV CFL experiments**

The first picture shows the high tension cord entering the picture from the right and connects to one filament wire. It is able to light the CFL with the other end unconnected.



On the next picture a test wire is connected to the other end of the CFL, the test wire does not touch the two other CFL's, a non modified CFL and the worn out 30W CFL tube seen on the picture.



The brightness of the modified CFL increases a little but not much when the crocodile test wire is connected to the other end of the modified CFL. The third picture is a close-up.



The fourth picture I added two new and longer CFL's:



The last picture I could not get enough space to view the whole length of the tubes, so you have to take my word for it.





I name the tubes right to left #1..#4. Tube 1, 2 and 3 is series connected, ie. HV cord to one side of #1, other side of #1 to bottom of #2, Top of #2 to top of #3. The bottom of #3 is unconnected.

I have the same tubes as the ceiling lights with high quality reflectors for energy saving reasons. Tube #2 closest to my small modified CFL has brightness like the one of the same type in the ceiling; the long tube at the end of the series connection is about half that brightness. Note the hard shadow to the right despite the good illumination from the ceiling light. Strangely my modified small CFL (#1) is now dimmed significantly while the next CFL (#2) in the middle of the series chain is incredibly bright.

The long tubes #2 and #3 are a high efficiency type marked 18W; the older and shorter worn out tube is marked 30W. #4, the unmodified CFL same type as #1 (23W) still emit some dim light although it is 4cm away from the test wire between #1 and #2. It can not be seen on the picture because of strong light from #2. The HV supply I made about 5 years ago for a specific purpose. It is strange that it can do this. At that time the only thing I knew about Tesla was the measure unit for magnetic flux.

### **Now two bright CFL's**

I just added the worn out 30W CFL named #5 to the end of the series connection (to bottom of #3).

Now #2 and #3 is very bright while #1 and #5 (the end of the series chain ) is dim with #5 more bright than #1. I also tried to put the #3 to #5 test wire in between the tube "windings" of #4, then #4 is nearly the same brightness as #5. And #3 now has a bluish color at both ends.

### **Now 6 CFL's in series, 4 bright, also series-> parallel->series test**

4 bright CFL's, 1 dimm at each end. The second last ( farthest from the HV cord ) is slightly less bright than the 3 preceding. So HV->dim->BRIGHT->BRIGHT->BRIGHT->bright->dim-> no connection and

HV-->dim-> | -dim--- |  
..... | -dim--- |  
..... | -BRT-- | ->BRIGHT->dim-> no connection

Weird for this parallel series connection. In series they were equal brightness, in parallel two dim and one BRIGHT, maybe its just because the BRIGHT is not the same type as the dims. But why were they then equal in series. Probably not the same gas density  
Editorial: The periods are "white space" necessary for indentation. Myself have an old 15 kV probe and a Tektronix 40KV probe. But until now I have not dared measuring my HV tension. I fear for my expensive probe.

Also please observe the de rating of max allowed voltage, when measuring high frequencies with the HV probe. The experiments started as follows:

First I tried with the high tension cord alone to one filament wire at one end of the modified tube, and no wires to the other end of the tube. The CFL was lit about the same as when connected to Imhoteps circuit, but with my home made coil instead of the car ignition coil. Then I connected the HV supply ground wire to the other end of the CFL. I hit the pushbutton very briefly to get a very short burst. The CFL bulb made a distinct sharp ping/bang like a flashlight, and the light also seemed like a photo flashlight in intensity. Thats also why I tried the serial connection, maybe the parallel connected bulb would end up exploding. My HV supply is aggressive. Arching to ground with normal wires just melts the ends of the wires.

Arching with Wolfram welding electrodes burns them after 2-3 seconds radiating UV light like a TIG welder, same intensity. Protect you eyes, the alternative is painful I can tell. Even from relatively short time exposure. My HV power supply was built for both HV and power. It is no watts sawer, but it has the tension to demonstrate some effects. The question is: Can one of us succeed making a functional solid state supply without sacrificing the efficiency. From my 3 week build and optimizing period for the HV supply, the build up of the flyback trafo were the most difficult part. And yes, take care.

## Best total brightness so far and very weird effect

This configuration gives the most total light. HV-->dim-->one end of 5 BRIGHT tubes. all open in the other end. I also tried to "parallel" all six, but my supply did not like that. I have a sensible nose (learned the hard way), and stopped before harming the supply. Some configurations of the tubes reflect much power back to the supply, and that is not rewarded. A strange effect is that my modified small bulb is very inefficient compared to the straight tubes.

I also tried holding a piece of aluminum foil close (actually touching) the middle of 4 tubes, no observed change in light emissions. And I tried this

HV-->bright- | ->dim-> no connection  
..... | ->dim-> no connection  
..... | ->dim-> no connection  
..... | ->BRT-> BRIGHT--> piece of alu foil 30 \* 50cm lying on the carpet floor

Holding the plastic base of the 23W unmodified CFL so the glass tube touches the alu foil gives surprisingly brightness, more than double of the same type modified CFL connected to the HV cord. I use a small unmodified defective 9W CFL as a HV test probe. using that on the all serial connections I could not tell the difference in test brightness at the HV cord and the last test wire in the chain. And now to some very weird effects utilizing a small neon bulb,

1. setup: I hold a test wire in my hand and clip one neon bulb pin to the test wire. I check the voltage pressure by holding close or touching with the other neon terminal. I just hold the tests wire without holding the metal. Very dim at the surface of a CFL tube as for all "isolating surfaces" incl. the HV cord. If I touch the isolated metal ring at the end of the CFL the neon lights very bright orange. Dim in the vicinity of the Alu foil, but when i touch the alu foil it is again very bright orange.

2.setup:I have just received a bunch of HV micro oven diodes. I took two diodes and the neon bulb and connected them in an imaginary current loop so the current can flow through the two diodes and the neon bulb, but there is no element to drive the current in the loop.

Again I took a test wire clipped it to the midpoint of the diodes and let the other end touch the alu foil.

The neon gave slightly more light than when touching the the glass surface of the CFL's but listen now.

The light from the neon was now flickering a lot and it gave a hissing sound and the smell of ozone emitted from my "current loop", unbelievable. I must say I have been

lucky to see so much in less than 2 days. But it has opened my eyes that while it is quite simple to see an effect demonstrated the Imhotep way, I think there is much hard work to do, to refine this seemingly "simple" thing. I also see two possible roads: The Imhotep way regenerating and battery supplied. A solution that makes perfectly sense. Thanks.

But maybe also it could be rewarding to get something to plug into the grid, as an energy saver. Not exactly the principally best solution, but sometimes it can be best to pick the low hanging fruits first, although the ones at the top looks much more tempting. Until convinced otherwise I compare this to transmission lines. An analog example is the manifolds on cars.

An ordinary and poor constructed set of manifolds sitting on a 3 litres car gives maybe 180 hp, while the super optimized manifolds on a formula 1 racing car employs acoustic resonance and transmission line reflections in the manifolds to the outmost, giving the 3 litres racing engine around 900 hp. I know several other factors contribute to this, but the tuning of the manifolds is a significant one, as a byproduct it makes a terrible noise experienced live. By the way thats why it is called tuning, as the manifolds has been compared to organ pipes.

So we have to find the best CFL tubes and create an efficient circuit to feed the tube with suitable voltage and frequency, tune it right. Please correct me if i'm mistaken. I feel a bit worn down right now, when I have regained normal condition; I will try out some more configurations to study more the nature of this beast.

To circuit info:I am not going to publish a picture of the supply, please understand. But apart from that I will give you the diagram and instructions for the transformer. I now digged up the old diagram. It is hierarchical, so I will extract the info relevant for this circuit and makes a diagram for you, stand by. As I mentioned, there is not much special to the electronic circuit.

But the transformer I use performs the double of the previous transformer attempt. so this requires some thoroughness in making. Also the PCB is important, and that can not be seen from the diagram. The length of the current loop outside the transformer must be kept very short and ground plane used. I expect no test wire to be suitable here.I consider it a very rare experience to create something that can't be improved, the transformer has certainly much room for improvements.

However I don't know if it is worth duplicating. It will cost you at least a day, maybe 5, i don't expect the SMD parts to be common experimenter stuff, and considering this was designed for both high voltage and high power (watts), In the original application it consumed around 400W from a 24V supply. I have not had the time to measure the

consumption with the CFL's, a normal clamp meter does not work. I expect less load than the original circuit.

I personally would wait to see if the next idea is better, on the other hand, the present supply can be considered a power hungry experimenters kit. I think another kind of circuit would do a better job at considerably less watts, time will tell. But please don't listen, that's just my opinion, follow your intuition and experience.

### **Watts vs. driving capability**

There is few more things I did not mention: The frequency is around 30 kHz as far as I remember.

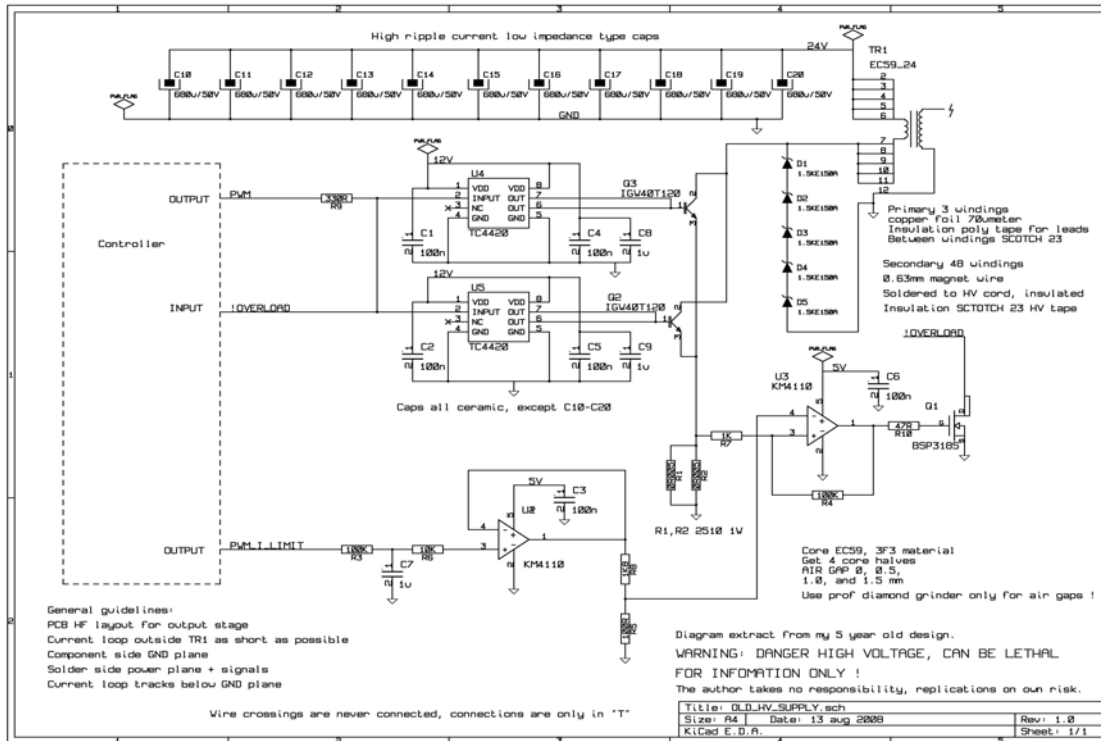
Now I have 5 CFL connected apparently without reducing the brightness ( I dont have a lux meter ), when adding a CFL. I already darkened a room to get 2 more CFL's. So I need more to see where the limit is. So if a sufficient high number of CFL's can be operated, my power hungry supply could maybe even turn out to be efficient.

As a last thing today I tried making a closed loop with 5 CFL's in series. The light is incredibly intense, several times more than in normal operation, at least a factor 3. Hard to judge without a lux meter. Incredibly BRIGHT, except "of cause" I feel tempted to say, the first modified 23W CFL a little more bright than dim. Now there is no ping/bang, only the very intense light.

The same with a closed loop of 6 in series. but now the over voltage circuit get noisy, so I stop, better safe than sorry in this case. But why ? when I operated open circuit there is no problem. Also the usual hissing and ozone is not present, only with the "current loop" mentioned in my previous post I had hissing and ozone. As soon a I make a closed loop it seems I get an apparent over voltage when increasing from 5 to 6 CFL in series. Resonance maybe ???

I am not very experienced with measuring very high voltages with my expensive HV probe. I prefer to keep it alive. On the other hand I could learn more about the circuit, I have also made a small 400kHz SMPS with some special properties. It was only expected to deliver 2-3 kV. When I tried to measure the transformer output by approaching the terminal with the probe while in operation, it arched some millimeters and hissed. This is why I am reluctant to use the probe on the much more powerful supply for the CFL's Any advice and hints are welcome, thanks in advance.

## Diagram, finally + power considerations



### [Old high voltage power supply schematic](#)

Above is the diagram **Please, Please take care, this is no toy.** Do not consider this state of the art, the design is 5 years old. My PCB is a surface mount layout, it is a great help.

After reading Tesla stuff, the good thing is that my old experiments led in the right direction, that's probably why this traditional flyback circuit can be regarded a HV experimenters kit to demonstrate unusual effects as described in my previous posts. I wonder if the apparent over voltage experience is due to a radiant event. The ingredients are there, high voltage, sharp transients and high resistance.

Regarding the present circuit, many things can be done to improve it. More capacitance close to the PCB. Ceramic capacitors very close to the primary current loop. Present 11 capacitors surrounds the primary current loop to ensure low impedance. A vario supplying DC through a bridge to run to maybe 240 V instead of 24 V for experimenting with higher primary voltage/shorter on time. Norman Wootan stated "Compress energy in time "To make it energy efficient, i would consider to use a resonant circuit with diode plug as pre-stage the Hector way. Another species of




transformer.

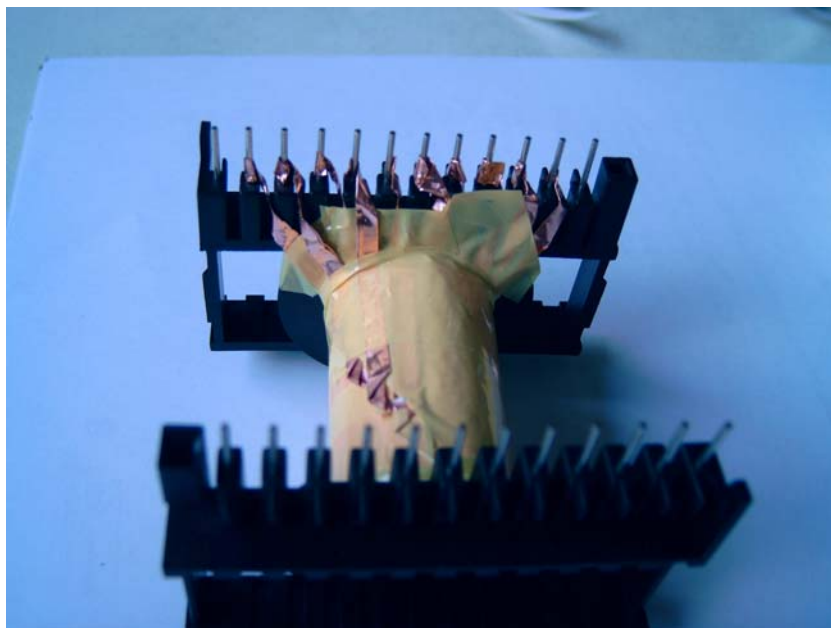
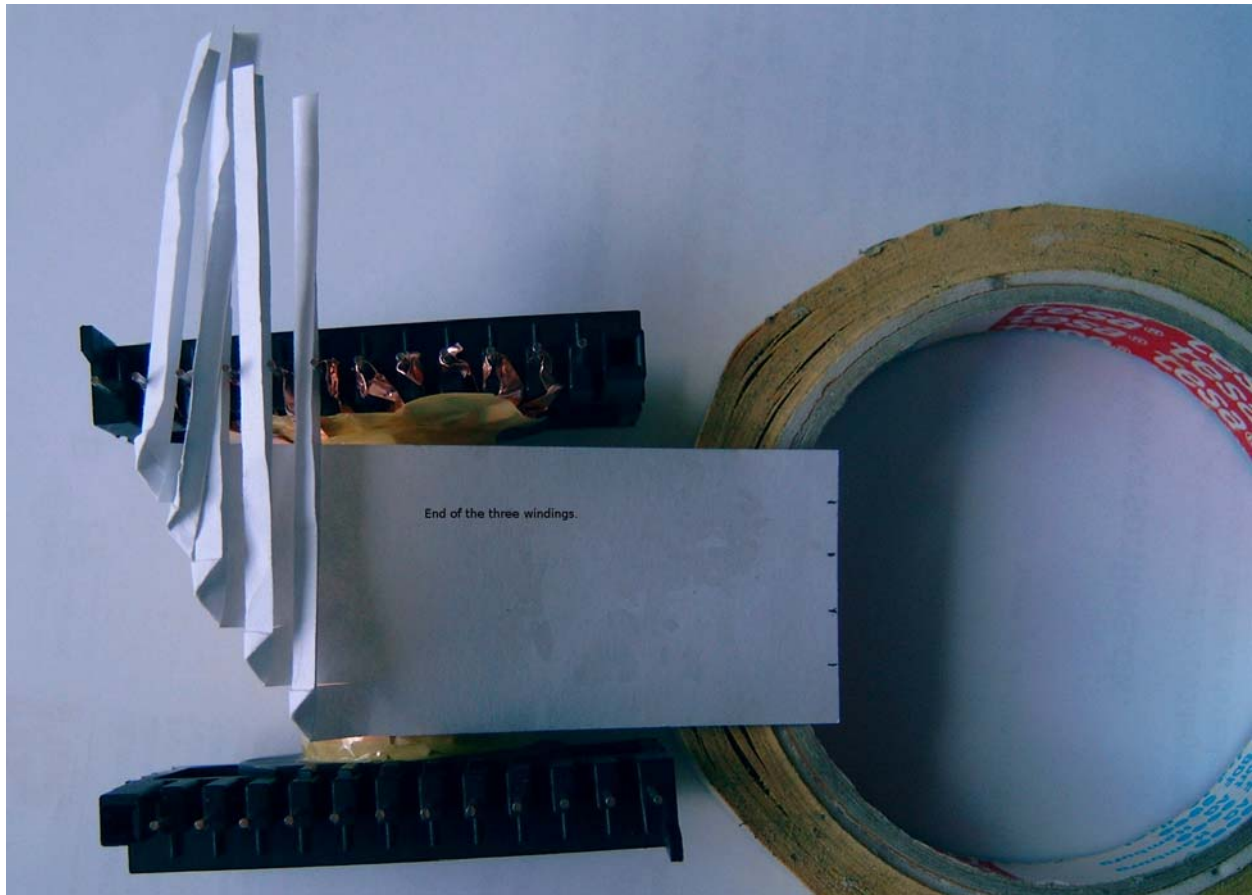
Power consideration: It can lit 4 pcs. of 36W tubes to be very bright. at least a factor 3 judged with my eyes. If that is correct, I get  $3 * 4 * 36W = 432W$  light equivalent. Further more I think it could be possible to make 2 sets of 4 serial CFL's and put them in a parallel closed loop. I would not be surprised to see that work. But this is just talking; I have ordered more tubes and a LUX meter to qualify by numbers. At that time I will measure the watts also.

I have retrieved some pictures from the backup on how to wind the primary winding. Insulate the primary from the secondary with 3 layers of SCOTCH 23. The secondary ends opposite end of the primary ribbons. Be sure to embed the soldered connection to the HV cord in SCOTCH 23 tape.

Important, stretch the SCOTCH 23 tape approx. 50% and avoid trapped air. Trapped air will ionize and destroy the insulation. Less than the best can create internal shorts. Do not use low end normal insulation tape for this. On the picture you can see the yellow poly tape used for the ribbons. It is also an excellent insulator, but it is too thin, so the internal capacity gets high, and you get reduced power output. Don't stretch the 23 tape much between the primary windings.



Beginning of the 3 windings.  
Put SCOTCH 23 tape between the windings,  
so the primary winding is completely enclosed  
This is very important in the high voltage end  
of the secondary.  
The coil former is 41mm inside. Fill full length with  
SCOTCH 23 HV tape.  
The 70um copper foil is 35 mm wide, split into  
5 ribbons 7 mm wide each end, ribbons insulated  
with poly tape.  
Start practicing on a piece of paper.  
The copper foil is very easy to tear apart.  
When the windings are completed solder ribbons to  
the pins according to the diagram.



By selecting 2 of the four core halves you can get the air gaps 0,5mm, 1,0mm, 1,5mm, 2,0 and 2,5mm. The magnetic energy is stored in the air gap, not the core. The wider

the more power the core can handle, The cores are clipped to the coil former with clips bought together with the coil former.

The question is what to do now. The Radiant Oscillator is an easy to replicate item, while my supply is not. As I have mentioned I have lurked around for more than half a year, trying my best to grasp this, to me, new world of alternative energy. I have seen several applications that is obvious to solve with a micro controller. The Lindermann motor being one example. But for this statement to be true, you need some knowledge about uControllers.

I am a newbie in alternative energy, but I made my first micro controller instrument in the early 1980'ties. The last 5 years i have made 30 different PCB designs including SW. My newest SMPS has no HW controller, all are made with sw in a Tiny45. This way I get exactly what I want. I have seen and used a lot of different controllers and CPU's. For doing circuits the Tesla way I can recommend two easy to learn and use controllers. It is 8 bit controllers, who are members of a big family of processors, so you have a rich set to choose from. Having learned to use one of the AVR's then you almost have leaned to use all of them.

I would focus on the 8 pin ATTiny45 (2\$) and for more advanced use, the 24 pin AT90PWM3B (4\$) with 3 independent PWM controllers on chip. The top AVR family members are overshooting in most of our applications. The SW tools are nice and free of charge, and the Dragon, a programming and debugging tool, costs less than 80\$. Then you are up to full speed tool wise. Programming languages: assembler, C or C++.

[Atmel Corporation - Industry Leader in the Design and Manufacture of Advanced Semiconductors](#)  
[AVR Freaks](#)

Avrfreaks.org is a big forum with lots of kind and helpful members, you often get help in half an hour. But don't mention alternative energy, they are with a few exceptions a bunch of skeptics.

The Tiny45 can sleep when no work has to be done consuming down to 0.1 uA, but still ready to wake up and do some work.

You can make self oscillating SS Bedinis with the 8 Pin Tiny45, automatically shifting batteries solid state, and power down when all is up, I have a nearly completed diagram for that. I have built a well functioning SS with a small PNP (TO-223, polarities mirrored) instead of a big NPN, so now the negative pole is pulsed. It has revived otherwise completely for years dead NiCd's to better than new capacity, so it works well and that's my base for the new automatic circuit not built yet. So a lot of

possibilities come to you if you climb the learning curve. If there is interest to go for it, I suggest we start a new thread for that purpose. The avrfreaks forum gets you started, and I can assist giving tips here on how to use the uC for our applications. And I could fill the void controller space on the diagram.

Back to the HV supply: Shortly spoken it is a normal flyback 24V supply, but with 11 high ripple current Chemicons in a cap bank, 11 \* 680uF/50V, 3 winding full coil former with copper foil primary, sliced at the ends for a total of 10 terminals, and 48 windings of 0.63 mm magnet wire. Insulated with Scotch 23 HV insulation tape. Discharge path through the 3 windings -> 2 paralleled IGBT's a current sensing resistor 2.5 milliOhm and a total not directly magnetically coupled path to the core of approx. 120mm incl. IGBT pins.

The 100 x 160mm PCB is operated at 30 kHz by an Atmel Mega32 micro controller. In the original circuit it consumed approx. 400W drawing a knife arch up to 1.5mm gap and 180mm long/wide, operating at approx. 3-4 kV when started, It is capable of approx. 20kV unloaded for igniting the arch.

The overload circuit prevents loads of fried IGBT's. I have fried a total of 5 for development and use.

But the program must listen to the overload input so IGBT's are not stressed too much. The IGBT's has a hard job in this circuit, getting too hot starts an accelerating death spiral.

But with sw provisions for long term overload, no problem. Actually there is a uC, Tiny45 with temperature sensor on-chip, so if the processor is thermally coupled, reliability is no problem.

My supply has been in daily work for 2 years until obsolete, I started with one IGBT, but had to use 2 to get it reliable. With one only, it lasted only a few months.

A good heat sink is necessary as it runs right now, size depending on how hard you want to push the IGBT's My present program has intermittent operation 20% on time, That allowed me to raise power a bit more. I can recommend Kicad for PCB layout, it works on both M\$ and Linux. [Main Page - KiCad](#)

[AVR Freaks](#)

Code::Blocks for SW development environment.

AVRStudio or avarice

The GCC compiler. WINAVR

The AVR Dragon programmer/ debugger.

### Summery

LidMotors replication

<http://www.youtube.com/watch?v=Hri3emvN2Jk>

Jetijs's Replication

<http://www.youtube.com/watch?v=rOEKCHO98b0>

Lidmotors newest videos - Solar and a dimmer

<http://ca.youtube.com/watch?v=eYlkiRWAHAg>

Lidmotor: Adapted for a Solar Panel :

<http://ca.youtube.com/watch?v=BISEHa7Xvel>

Waterhouse24's replication - Excellent!! the magnet on the relay was interesting, amazing results

<http://www.youtube.com/watch?v=5WWgFEETjXI>

Bodkins is making great progress in running multiple bulbs. Keep up the great work! And interesting setup with a 555 timer circuit!

<http://www.youtube.com/watch?v=2PpMOrPSXkc>

<http://www.youtube.com/watch?v=DjVwRF-wGOY>

Imhotep: We have uploaded another video of test we did with 48inch 40 watt fluorescent tube. enjoy

<http://www.youtube.com/watch?v=LmY3iAKJKXc>

Jetijs's replication - he had an interesting approach using a flyback

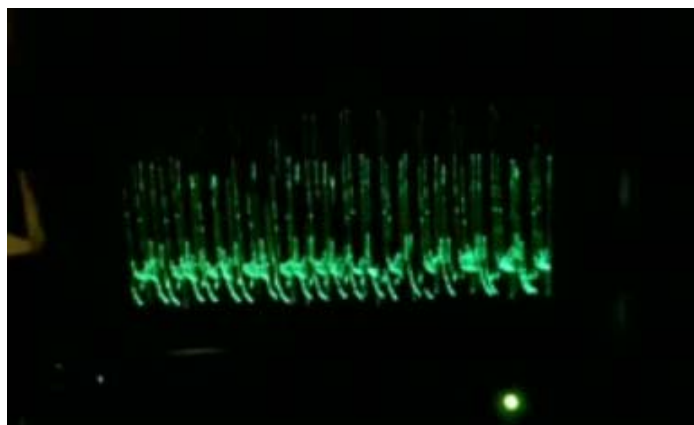
<http://www.youtube.com/watch?v=vZnDrF-XcGk>

Bodkins got creative as well using a reed relay

[http://www.youtube.com/watch?v=sNPa\\_ie8FBY](http://www.youtube.com/watch?v=sNPa_ie8FBY)

## **Faculty information**





HV spikes Taken from the video

Imhotep's comments-The circuit is removed from the fluorescent because it is what causes it to draw the energy, what we are doing is sending the electricity through the gas which drops the current it draws. In my experiments one thing that we noticed was the CFL drew a lot more current than what they said they did. For example : If you have a 75 watt light output CFL that says it draws 18 watts what it really is drawing from the power company (what your paying for) is double that. A quick experiment to test this is to get a hold of a kill-a-watt reader. And take a lamp and hook up a cfl, plug the lamp into the kill-a-watt and read the power factor. A 18 watt will actually draw 36 watts. We were quite astonished.

I have only been able to light up one bulb with the circuit; I have tried experimenting a bit with lighting more, but so far haven't come up with a way to do that. But I am sure someone here will get that worked out. You are using pulsed dc but if you use 2 coils and 2 relays it is possible to convert it to ac, we are working on other circuits now but I'm sure with some experimenting it could possibly work.

The reason I gave the specs on the resistance was so that if you wanted to replicate my results exactly same brightness same current draw it would be easily be able to accomplish, even if you could not get the exact coil you could get the dc resistance pretty close and match results pretty close.

The reason i used a relay was so you would not have to build the circuit you can also use scr's, transistors, 555 timers, FET's with some having less current draw and some having more, some requiring heat sinks and more circuitry. I wanted it to be very simple and very easy that's why I went the method i did, you can use any components you want, possibly even microwave transformer is place of the coil. The sky's the limit.

The concept is yours to experiment with. But if you match the components as closely as you can as I provided you will get the same results, which is really good brightness, low current draw and charging up a second battery.

I would imagine if you match the primary dc resistance and secondary dc resistance you might be able to use the newer coil packs which most of them are 4 or 6 cylinder versions and I'm not sure, but I believe they dual fire and actually you would have 2 or 3 coils, if you can get a good service manual with schematics of the ignition it will show you how the packs are wired and you should be able to possibly use it to fire 2 or 3 bulbs. That's something I will be trying in the future. I also wanted to dual fire either with 2 coils or with a coil pack so if you don't do it, I will be in the future and I'll let you know. Don't worry if your results are as efficient as mine or exact it's all a journey. And remember your getting energy recovery so as your draining one your charging another.

### **Lamp Efficiency analogy by Dr Peter Lindermann**

Let's talk about efficiency. In order to do this, you have to understand a few things about AC power. The first thing is, there are THREE kinds of power present in commercially available AC electricity. The first kind is called REAL POWER, measured in WATTS. The second kind is REACTIVE POWER, measured in Volt-Amperes-Reactive. The third kind is called APPARENT POWER, measured in Volt-Amperes. Contrary to popular belief, the kind of power the public utility sells you is NOT real power measured in watts, but apparent power measured in Volt-Amperes. The difference between Apparent Power and Real Power is the Power Factor, which also represents the amount of Reactive Power present.

If you have a Kill-A-Watt meter, you can follow along and prove all of this to yourself. A resistive load, like a filament light bulb draws only Real Power and no Reactive Power. Therefore, the Real Power and the Apparent Power are EQUAL. However, an inductive load draws Real power AND Reactive Power, so the total amount of Apparent power needed to run an inductive load (like the power supply in the CFL) is more than the total Watts showing on the meter.

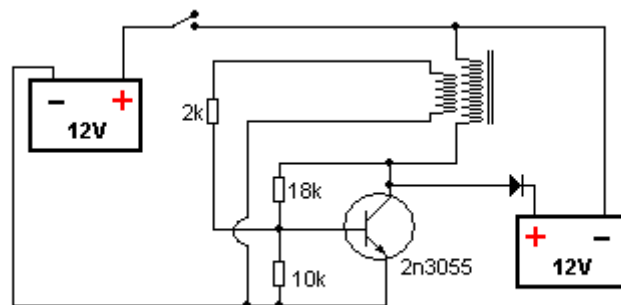
The simple test is to take an ordinary filament type of light bulb and a compact fluorescent light bulb (CFL) and run this test with your Kill-A-Watt meter. First, plug the filament bulb into the meter and read the WATTS. Then read the Volt-Ampere reading, and finally, the Power Factor. In this test, if your light bulb is rated at 75 watts, the meter will read 75 watts, 75 Volt-Amperes, and a Power Factor of 1.

Next, plug in the CFL bulb. Let's say the CFL is rated for 18 watts, and is designed (and sold to you) to replace a 75 watt filament bulb. Everybody repeats the LIE that these CFL's run on just 25% as much power as the bulbs they replace. But what do they really

do, and what are you really charged to run them? The Kill-A-Watt meter tells the truth! The meter says that the CFL rated for 18 watts draws..... 18 watts so far, so good! Unfortunately, the CFL, due to its inductive power supply, is operating at a power factor of about .55, so it draws about 33 Volt-Amperes of Apparent Power. Since Apparent Power is what the utility company is SELLING you, the CFL actually costs almost twice as much to run as you have been lead to believe. In the coming weeks, Imhotep will be providing a "fix" for this also, so even the CFL's you run in the normal way will cost less to run. In the meantime, Imhotep's circuit really is running these CFL's for a small fraction of the normal cost, AND recovering about half of that, as well.

If you have modified the GE 42 watt CFL for this circuit, like Lidmotor shows, and can light it to high brightness on 12 volts @ 1.2 amps AND recover about half of this power to charge a battery, then the real cost of lighting the light is about 7.2 watts. Since this is DC from a battery, that is the Real Power consumed. This same CFL, running from the AC line, will draw more than 76 Volt-Amperes of Apparent Power (42 watts @ .55 PF). That means that Imhotep's circuit SAVES you over 90% of the real cost of running the light! -end

#### **Background on the Solid state concept by peter Lindemann**



The above circuit belongs originally to John Bedini. It is one of two primary "solid-state" oscillator circuits that John developed for his battery charging technology. This circuit was released some time ago, but to the best of my knowledge, the second circuit we investigated was never published by John.

This circuit, as shown, is what we referred to as the "self-oscillator". It had long been observed that if a large enough resistor was used in the base loop of an SG type motor, the circuit would self-oscillate without the rotor turning. In the SG, this effect was generally considered an unwanted nuisance. The fact that this did happen eventually lead John to develop a circuit that did this on purpose. All of my lab notes from that period show the circuit with a 1K resistor instead of a 2K resistor, but otherwise, it is identical. The circuit obviously works with either value.

Here is how it works. When the circuit is turned ON, the 18K resistor forward biases the transistor to conduct current, since the base is in the current path of the 18k and 10k resistors across the power supply. This energizes the power coil, which in turn energizes the trigger coil. Since the trigger coil is wired in the opposite direction, it produces a voltage which conducts current up through the closed loop including the 10k resistor, the 2k resistor, the trigger coil, and back to ground. Current in this loop reverse biases the voltage at the base of the transistor, turning the transistor OFF. When the transistor turns OFF, the energy of the magnetic field in the primary coil discharges through the secondary circuit, through the diode to the charging battery. As soon as this discharge is complete, the cycle repeats. The frequency of this oscillation is determined by the inductive rise-time of the coil and the values of the resistors.

This circuit produces the characteristic "h-wave" of the Bedini Radiant Chargers. John published this circuit a number of years ago in the SSG forums, so everyone is free to use it, or develop other variations of the circuit as the case may be.

#### **Back round on the circuit's dynamics by Ren**

<http://keelynet.com/tesla/00568177.pdf>

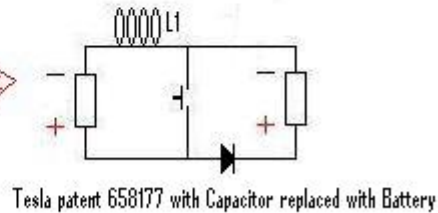
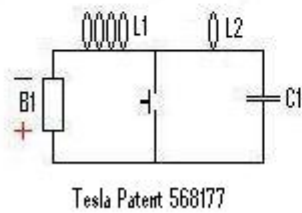
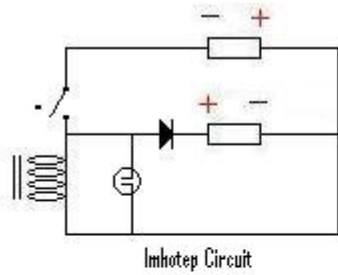
<http://keelynet.com/tesla/00568176.pdf>

<http://keelynet.com/tesla/00568179.pdf>.

Studying the principles put forth in these patents will greatly help the individual come to grips with the resonant activities being unleashed. Is Mario still around Peter? I believe he built a good Ozone replication with a FET and was getting high voltage off his transformers secondary. I believe there is a way to get this to run off one battery, and have the spikes charge/supplement it alone. I can also see the similarities of this circuit to the SGG circuit. I might even try winding a SS self oscillator a la [Bedini](#) with a third winding as the secondary of the transformer. Looking over the net I note that the ratio of primary to secondary on an ignition coil is about 1:100. No wonder resistance is so high on the secondary.

#### **Relevance to the Tesla Project**

Imhotep's technology has relevance to the Tesla Project thread posted at overunity dot com. Using a relay as the inductance and switching mechanism. As well this circuit is what is referred to as a DC/DC Buck converter, DC/DC step up converter or switch mode converter----and your computer power supply uses exactly the same circuit minus the second charge battery. As well in the Tesla thread we powered DC motors added to the relay inductance and used the inductive discharge to power neon's and fluorescent bulbs.

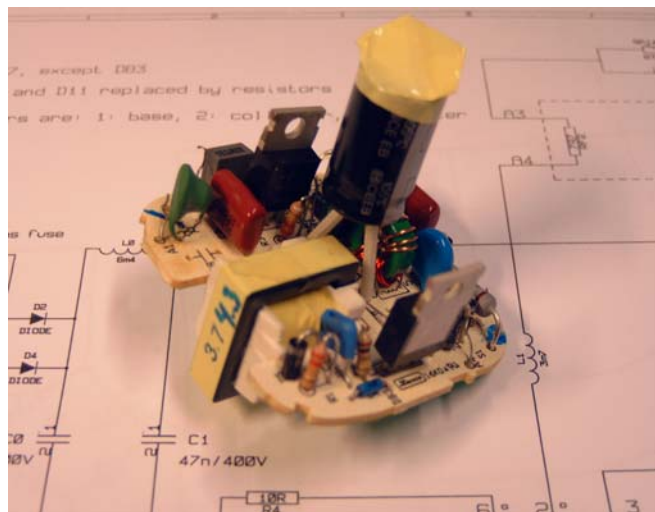


### Negative resistance related to Aromaz circuit

John Bedini said. There are a few transistors that he found would go negative. mjl21194 and 2n2222. One or two others that I don't recall the #'s off the top of my head. But you guys are onto it I think if you found these effects with 2N2222. You may find something else if you replace the 2n3055's with MJL21194's. I wouldn't buy those to try that...just if you happen to have them on hand. Otherwise, what you have is working it seems 2N2222.

### CFL bulb circuit reverse engineered

A 230V 23W CFL bulb circuit reverse engineered. This is reverse engineered the diagram from the PCB for my power factor corrected 230V 23W CFL bulb. Capacitor C8 is missing because it was used in the engineer's replication.



[File JPG](#)

## Compact florescent analogy (how to repair and general description)

[http://www.pavouk.org/hw/lamp/en\\_index.html](http://www.pavouk.org/hw/lamp/en_index.html)

### Related faculty research

Konstantin Meyl-Panacea-BOCAF [back round reference page](#)

The German professor Konstantin Meyl is a brave man: Just watches the video with the small boat and a bulb running from a small scale model of Tesla's Magnifying Transmitter. Meyl claims this small circuit independently tested has demonstrated a COP up to 10. It looks like the flat spiral coils fits a double sided PCB approx. 100 \* 100 mm. The motor consumes 2.5W wireless transmitted power.

His university does not want him to tell about this, freedom of speech in the EU ? He was previously fined in court 4000 Euro for a demonstration. The court sentenced him for 50mW emissions even though mobile phones emit much more. An EU agency actually compares the danger of 3G mobile phones and WIFI emissions with the danger of asbestos. Meyl call it electrosmog. He is also a speaker on health conferences. There are much more of interest from [Prof. Meyl on his page](#).

[Tesla longitudinal electricity](#)

### Supplies

[555 Noise-Maker Kit > Maplin](#)

[Condenser \(electronics\)](#)

<http://www.austechwire.com.au>

### Technical support forum

<http://www.energeticforum.com/renewable-energy/2255-imhoteps-radiant-oscillator-video-2.html>

### Replication Videos

[YouTube - Imhotep Radiant Oscillator -- Solar powered](#)

[YouTube - Imhotep Radiant Oscillator --My Replication ---Part 2](#)

[YouTube - My replication of Imhotep's radiant oscillator](#)



[YouTube - Free Energy Radiant Oscillator Lite Replication](#)

[Free Energy Radiant Oscillator Lite Replication](#)

[YouTube - ipariah's Channel](#)

[YouTube - Bodkins reed switch Imhotep's Radiant Oscillator](#)

## **Links**

<http://www.imhotepslab.com>

[Imhotep's video channel](#)

[RMCybernetics - DIY Homemade Ignition Coil Driver](#)

## **Credits**

The open source energy community!

If you are able to contribute to this document in ANY way, IE- replication details, faculty info and or additional data please [Contact](#) the non profit organization.

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